

Human Secreted Proteins

[1] This application is a continuation-in-part of, and claims benefit under 35 U.S.C. § 119(e) based on copending U.S. Provisional Application No. 60/278,650 filed on March 27, 2001. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending U.S. Utility Application No. 09/833,245, filed on April 12, 2001, and PCT International Application Serial No. US01/11988, filed on April 12, 2001. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06043, filed on March 9, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/167,061, filed on November 23, 1999, and U.S. Provisional Application No. 60/124,146, filed on March 12, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06012, filed on March 9, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/166,989, filed on November 23, 1999, and U.S. Provisional Application No. 60/124,093, filed on March 12, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06058, filed on March 9, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/168,654, filed on December 3, 1999, and U.S. Provisional Application No. 60/124,145, filed on March 12, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06044, filed on March 9, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/168,661, filed on December 3, 1999, and U.S. Provisional Application No. 60/124,099, filed on March 12, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06059, filed on March 9, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/168,622, filed on December 3, 1999, and U.S. Provisional Application No. 60/124,096, filed on March 12, 1999. This application

is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06042, filed on March 9, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/168,663, filed on December 3, 1999, and U.S. Provisional Application No. 60/124,143, filed on March 12, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06014, filed on March 9, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/168,665, filed on December 3, 1999, and U.S. Provisional Application No. 60/138,598, filed on June 11, 1999, and U.S. Provisional Application No. 60/124,095, filed on March 12, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06013, filed on March 9, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/168,662, filed on December 3, 1999, and U.S. Provisional Application No. 60/138,626, filed on June 11, 1999, and U.S. Provisional Application No. 60/125,360, filed on March 19, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06049, filed on March 9, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/168,667, filed on December 3, 1999, and U.S. Provisional Application No. 60/138,574, filed on June 11, 1999, and U.S. Provisional Application No. 60/124,144, filed on March 12, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06057, filed on March 9, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/168,666, filed on December 3, 1999, and U.S. Provisional Application No. 60/138,597, filed on June 11, 1999, and U.S. Provisional Application No. 60/124,142, filed on March 12, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06824, filed on March 16, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/168,664, filed on December 3, 1999, and U.S. Provisional Application No. 60/125,359, filed on March 19, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06765, filed on March 16, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/169,906, filed on December 10, 1999, and

U.S. Provisional Application No. 60/126,051, filed on March 23, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06792, filed on March 16, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/169,980, filed on December 10, 1999, and U.S. Provisional Application No. 60/125,362, filed on March 19, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06830, filed on March 16, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/169,910, filed on December 10, 1999, and U.S. Provisional Application No. 60/125,361, filed on March 19, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06782, filed on March 16, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/169,936, filed on December 10, 1999, and U.S. Provisional Application No. 60/125,812, filed on March 23, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06822, filed on March 16, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/169,916, filed on December 10, 1999, and U.S. Provisional Application No. 60/126,054, filed on March 23, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06791, filed on March 16, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/169,946, filed on December 10, 1999, and U.S. Provisional Application No. 60/125,815, filed on March 23, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06828, filed on March 16, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/169,616, filed on December 8, 1999, and U.S. Provisional Application No. 60/125,358, filed on March 19, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/06823, filed on March 16, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/169,623, filed on December 8, 1999, and U.S. Provisional Application No. 60/125,364, filed on March 19, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending

PCT International Application Serial No. US00/06781, filed on March 16, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/169,617, filed on December 8, 1999, and U.S. Provisional Application No. 60/125,363, filed on March 19, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07505, filed on March 22, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/172,410, filed on December 17, 1999, and U.S. Provisional Application No. 60/126,502, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07440, filed on March 22, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/172,409, filed on December 17, 1999, and U.S. Provisional Application No. 60/126,503, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07506, filed on March 22, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/172,412, filed on December 17, 1999, and U.S. Provisional Application No. 60/126,505, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07507, filed on March 22, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/172,408, filed on December 17, 1999, and U.S. Provisional Application No. 60/126,594, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07535, filed on March 22, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/172,413, filed on December 17, 1999, and U.S. Provisional Application No. 60/126,511, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07525, filed on March 22, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/171,549, filed on December 22, 1999, and U.S. Provisional Application No. 60/126,595, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07534, filed on March 22, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No.

60/171,504, filed on December 22, 1999, and U.S. Provisional Application No. 60/126,598, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07483, filed on March 22, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/171,552, filed on December 22, 1999, and U.S. Provisional Application No. 60/126,596, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07526, filed on March 22, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/171,550, filed on December 22, 1999, and U.S. Provisional Application No. 60/126,600, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07527, filed on March 22, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/171,551, filed on December 22, 1999, and U.S. Provisional Application No. 60/126,501, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07661, filed on March 23, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/174,847, filed on January 7, 2000, and U.S. Provisional Application No. 60/126,504, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07579, filed on March 23, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/174,853, filed on January 7, 2000, and U.S. Provisional Application No. 60/126,509, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07723, filed on March 23, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/242,710, filed on October 25, 2000, and U.S. Provisional Application No. 60/174,852, filed on January 7, 2000, and U.S. Provisional Application No. 60/126,506, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07724, filed on March 23, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/174,850, filed on January 7, 2000, and U.S. Provisional Application No. 60/126,510, filed on

March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/14929, filed on June 1, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/174,851, filed on January 7, 2000, and U.S. Provisional Application No. 60/138,573, filed on June 11, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07722, filed on March 23, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/174,871, filed on January 7, 2000, and U.S. Provisional Application No. 60/126,508, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07578, filed on March 23, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/174,872, filed on January 7, 2000, and U.S. Provisional Application No. 60/126,507, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07726, filed on March 23, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/174,877, filed on January 7, 2000, and U.S. Provisional Application No. 60/126,597, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07677, filed on March 23, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/176,064, filed on January 14, 2000, and U.S. Provisional Application No. 60/154,373, filed on September 17, 1999, and U.S. Provisional Application No. 60/126,601, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/07725, filed on March 23, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/176,063, filed on January 14, 2000, and U.S. Provisional Application No. 60/126,602, filed on March 26, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/09070, filed on April 6, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/176,052, filed on January 14, 2000, and U.S. Provisional Application No. 60/128,695, filed on April 9, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT

International Application Serial No. US00/08982, filed on April 6, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/176,069, filed on January 14, 2000, and U.S. Provisional Application No. 60/128,696, filed on April 9, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/08983, filed on April 6, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/176,068, filed on January 14, 2000, and U.S. Provisional Application No. 60/128,703, filed on April 9, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/09067, filed on April 6, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/176,929, filed on January 20, 2000, and U.S. Provisional Application No. 60/128,697, filed on April 9, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/09066, filed on April 6, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/176,926, and U.S. Provisional Application No. 60/128,698, filed on April 9, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/09068, filed on April 6, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/177,050, filed on January 20, 2000, and U.S. Provisional Application No. 60/128,699, filed on April 9, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/08981, filed on April 6, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/177,166, filed on January 20, 2000, and U.S. Provisional Application No. 60/128,701, filed on April 9, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/08980, filed on April 6, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/176,930, filed on January 20, 2000, and U.S. Provisional Application No. 60/128,700, filed on April 9, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/09071, filed on April 6, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/176,931, filed on January 20, 2000, and U.S. Provisional Application No. 60/128,694, filed on

April 9, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/09069, filed on April 6, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/177,049, filed on January 20, 2000, and U.S. Provisional Application No. 60/128,702, filed on April 9, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/15136, filed on June 1, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/138,629, filed on June 11, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/14926, filed on June 1, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/138,628, filed on June 11, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/14963, filed on June 1, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/138,631, filed on June 11, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/15135, filed on June 1, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/138,632, filed on June 11, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/14934, filed on June 1, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/138,599, filed on June 11, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/14933, filed on June 1, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/138,572, filed on June 11, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/15137, filed on June 1, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/138,625, filed on June 11, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of copending PCT International Application Serial No. US00/14928, filed on June 1, 2000, which claims benefit under 35 U.S.C. § 119(e) based on U.S. Provisional Application No. 60/138,633, filed on June 11, 1999. This application is also a continuation-in-part of, and claims benefit under 35 U.S.C. § 120 of

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Field of the Invention

[2] The present invention relates to novel proteins. More specifically, isolated nucleic acid molecules are provided encoding novel polypeptides. Novel polypeptides and antibodies that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human polynucleotides and/or polypeptides, and antibodies. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to these novel polypeptides. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention. The present invention further relates to methods and/or compositions for inhibiting or enhancing the production and function of the polypeptides of the present invention.

Background of the Invention

[3] Unlike bacterium, which exist as a single compartment surrounded by a membrane, human cells and other eukaryotes are subdivided by membranes into many functionally distinct compartments. Each membrane-bounded compartment, or organelle, contains different proteins essential for the function of the organelle. The cell uses "sorting signals," which are amino acid motifs located within the protein, to target proteins to particular cellular organelles.

[4] One type of sorting signal, called a signal sequence, a signal peptide, or a leader sequence, directs a class of proteins to an organelle called the endoplasmic reticulum (ER). The ER separates the membrane-bounded proteins from all other types of proteins. Once localized to the ER, both groups of proteins can be further directed to another organelle called the Golgi apparatus. Here, the Golgi distributes the proteins to vesicles, including secretory vesicles, the cell membrane, lysosomes, and the other organelles.

[5] Proteins targeted to the ER by a signal sequence can be released into the extracellular space as a secreted protein. For example, vesicles containing secreted proteins can fuse with the cell membrane and release their contents into the extracellular space - a process called exocytosis. Exocytosis can occur constitutively or after receipt of a triggering signal. In the latter case, the proteins are stored in secretory vesicles (or

secretory granules) until exocytosis is triggered. Similarly, proteins residing on the cell membrane can also be secreted into the extracellular space by proteolytic cleavage of a "linker" holding the protein to the membrane.

[6] Thus there exists a clear need for identifying and using novel secreted polynucleotides and polypeptides. Identification and sequencing of human genes is a major goal of modern scientific research. For example, by identifying genes and determining their sequences, scientists have been able to make large quantities of valuable human "gene products." These include human insulin, interferon, Factor VIII, tumor necrosis factor, human growth hormone, tissue plasminogen activator, and numerous other compounds. Additionally, knowledge of gene sequences can provide the key to treatment or cure of genetic diseases (such as muscular dystrophy and cystic fibrosis).

Summary of the Invention

[7] The present invention relates to novel secreted proteins. More specifically, isolated nucleic acid molecules are provided encoding novel secreted polypeptides. Novel polypeptides and antibodies that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human polynucleotides and/or polypeptides, and antibodies. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to these novel polypeptides. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention. The present invention further relates to methods and/or compositions for inhibiting or enhancing the production and function of the polypeptides of the present invention.

Detailed Description

Polynucleotides and Polypeptides

Description of Table 1A

[8] Table 1A summarizes information concerning certain polynucleotides and polypeptides of the invention. The first column provides the gene number in the

application for each clone identifier. The second column provides a unique clone identifier, "Clone ID NO:Z", for a cDNA clone related to each contig sequence disclosed in Table 1A. Third column, the cDNA Clones identified in the second column were deposited as indicated in the third column (i.e. by ATCC Deposit Number and deposit date). Some of the deposits contain multiple different clones corresponding to the same gene. In the fourth column, "Vector" refers to the type of vector contained in the corresponding cDNA Clone identified in the second column. In the fifth column, the nucleotide sequence identified as "NT SEQ ID NO:X" was assembled from partially homologous ("overlapping") sequences obtained from the corresponding cDNA clone identified in the second column and, in some cases, from additional related cDNA clones. The overlapping sequences were assembled into a single contiguous sequence of high redundancy (usually three to five overlapping sequences at each nucleotide position), resulting in a final sequence identified as SEQ ID NO:X. In the sixth column, "Total NT Seq." refers to the total number of nucleotides in the contig sequence identified as SEQ ID NO:X." The deposited clone may contain all or most of these sequences, reflected by the nucleotide position indicated as "5' NT of Clone Seq." (seventh column) and the "3' NT of Clone Seq." (eighth column) of SEQ ID NO:X. In the ninth column, the nucleotide position of SEQ ID NO:X of the putative start codon (methionine) is identified as "5' NT of Start Codon." Similarly, in column ten, the nucleotide position of SEQ ID NO:X of the predicted signal sequence is identified as "5' NT of First AA of Signal Pep." In the eleventh column, the translated amino acid sequence, beginning with the methionine, is identified as "AA SEQ ID NO:Y," although other reading frames can also be routinely translated using known molecular biology techniques. The polypeptides produced by these alternative open reading frames are specifically contemplated by the present invention.

[9] In the twelfth and thirteenth columns of Table 1A, the first and last amino acid position of SEQ ID NO:Y of the predicted signal peptide is identified as "First AA of Sig Pep" and "Last AA of Sig Pep." In the fourteenth column, the predicted first amino acid position of SEQ ID NO:Y of the secreted portion is identified as "Predicted First AA of Secreted Portion". The amino acid position of SEQ ID NO:Y of the last amino acid encoded by the open reading frame is identified in the fifteenth column as "Last AA of ORF".

[10] SEQ ID NO:X (where X may be any of the polynucleotide sequences disclosed in the sequence listing) and the translated SEQ ID NO:Y (where Y may be any of the polypeptide sequences disclosed in the sequence listing) are sufficiently accurate and otherwise suitable for a variety of uses well known in the art and described further below. For instance, SEQ ID NO:X is useful for designing nucleic acid hybridization probes that will detect nucleic acid sequences contained in SEQ ID NO:X or the cDNA contained in the deposited clone. These probes will also hybridize to nucleic acid molecules in biological samples, thereby enabling a variety of forensic and diagnostic methods of the invention. Similarly, polypeptides identified from SEQ ID NO:Y may be used, for example, to generate antibodies which bind specifically to proteins containing the polypeptides and the secreted proteins encoded by the cDNA clones identified in Table 1A and/or elsewhere herein

[11] Nevertheless, DNA sequences generated by sequencing reactions can contain sequencing errors. The errors exist as misidentified nucleotides, or as insertions or deletions of nucleotides in the generated DNA sequence. The erroneously inserted or deleted nucleotides cause frame shifts in the reading frames of the predicted amino acid sequence. In these cases, the predicted amino acid sequence diverges from the actual amino acid sequence, even though the generated DNA sequence may be greater than 99.9% identical to the actual DNA sequence (for example, one base insertion or deletion in an open reading frame of over 1000 bases).

[12] Accordingly, for those applications requiring precision in the nucleotide sequence or the amino acid sequence, the present invention provides not only the generated nucleotide sequence identified as SEQ ID NO:X, and the predicted translated amino acid sequence identified as SEQ ID NO:Y, but also a sample of plasmid DNA containing a human cDNA of the invention deposited with the ATCC, as set forth in Table 1A. The nucleotide sequence of each deposited plasmid can readily be determined by sequencing the deposited plasmid in accordance with known methods

[13] The predicted amino acid sequence can then be verified from such deposits. Moreover, the amino acid sequence of the protein encoded by a particular plasmid can also be directly determined by peptide sequencing or by expressing the protein in a suitable host cell containing the deposited human cDNA, collecting the protein, and determining its sequence.

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[14] Also provided in Table 1A is the name of the vector which contains the cDNA plasmid. Each vector is routinely used in the art. The following additional information is provided for convenience.

[15] Vectors Lambda Zap (U.S. Patent Nos. 5,128,256 and 5,286,636), Uni-Zap XR (U.S. Patent Nos. 5,128, 256 and 5,286,636), Zap Express (U.S. Patent Nos. 5,128,256 and 5,286,636), pBluescript (pBS) (Short, J. M. et al., *Nucleic Acids Res.* 16:7583-7600 (1988); Alting-Mees, M. A. and Short, J. M., *Nucleic Acids Res.* 17:9494 (1989)) and pBK (Alting-Mees, M. A. et al., *Strategies* 5:58-61 (1992)) are commercially available from Stratagene Cloning Systems, Inc., 11011 N. Torrey Pines Road, La Jolla, CA, 92037. pBS contains an ampicillin resistance gene and pBK contains a neomycin resistance gene. Phagemid pBS may be excised from the Lambda Zap and Uni-Zap XR vectors, and phagemid pBK may be excised from the Zap Express vector. Both phagemids may be transformed into *E. coli* strain XL-1 Blue, also available from Stratagene

[16] Vectors pSport1, pCMVSPORT 1.0, pCMVSPORT 2.0 and pCMVSPORT 3.0, were obtained from Life Technologies, Inc., P. O. Box 6009, Gaithersburg, MD 20897. All Sport vectors contain an ampicillin resistance gene and may be transformed into *E. coli* strain DH10B, also available from Life Technologies. See, for instance, Gruber, C. E., et al., *Focus* 15:59 (1993). Vector lafmid BA (Bento Soares, Columbia University, New York, NY) contains an ampicillin resistance gene and can be transformed into *E. coli* strain XL-1 Blue. Vector pCR[®]2.1, which is available from Invitrogen, 1600 Faraday Avenue, Carlsbad, CA 92008, contains an ampicillin resistance gene and may be transformed into *E. coli* strain DH10B, available from Life Technologies. See, for instance, Clark, J. M., *Nuc. Acids Res.* 16:9677-9686 (1988) and Mead, D. et al., *Bio/Technology* 9: (1991).

[17] The present invention also relates to the genes corresponding to SEQ ID NO:X, SEQ ID NO:Y, and/or a deposited cDNA (cDNA Clone ID). The corresponding gene can be isolated in accordance with known methods using the sequence information disclosed herein. Such methods include, but are not limited to, preparing probes or primers from the disclosed sequence and identifying or amplifying the corresponding gene from appropriate sources of genomic material.

[18] Also provided in the present invention are allelic variants, orthologs, and/or species homologs. Procedures known in the art can be used to obtain full-length genes, allelic variants, splice variants, full-length coding portions, orthologs, and/or species homologs of genes corresponding to SEQ ID NO:X and SEQ ID NO:Y using information

from the sequences disclosed herein or the clones deposited with the ATCC. For example, allelic variants and/or species homologs may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source for allelic variants and/or the desired homologue.

[19] The present invention provides a polynucleotide comprising, or alternatively consisting of, the nucleic acid sequence of SEQ ID NO:X and/or a cDNA contained in ATCC Deposit No.Z. The present invention also provides a polypeptide comprising, or alternatively, consisting of, the polypeptide sequence of SEQ ID NO:Y, a polypeptide encoded by SEQ ID NO:X, and/or a polypeptide encoded by a cDNA contained in ATCC deposit No.Z. Polynucleotides encoding a polypeptide comprising, or alternatively consisting of the polypeptide sequence of SEQ ID NO:Y, a polypeptide encoded by SEQ ID NO:X and/or a polypeptide encoded by the cDNA contained in ATCC Deposit No.Z, are also encompassed by the invention. The present invention further encompasses a polynucleotide comprising, or alternatively consisting of the complement of the nucleic acid sequence of SEQ ID NO:X, and/or the complement of the coding strand of the cDNA contained in ATCC Deposit No.Z.

Description of Table 1B

[20] Table 1B summarizes some of the polynucleotides encompassed by the invention (including cDNA clones related to the sequences (Clone ID NO:Z), contig sequences (contig identifier (Contig ID:) and contig nucleotide sequence identifier (SEQ ID NO:X)) and further summarizes certain characteristics of these polynucleotides and the polypeptides encoded thereby. The first column provides the gene number in the application for each clone identifier. The second column provides a unique clone identifier, "Clone ID NO:Z", for a cDNA clone related to each contig sequence disclosed in Table 1A and/or 1B. The third column provides a unique contig identifier, "Contig ID:" for each of the contig sequences disclosed in Table 1B. The fourth column provides the sequence identifier, "SEQ ID NO:X", for each of the contig sequences disclosed in Table 1A and/or 1B. The fifth column, "ORF (From-To)", provides the location (i.e., nucleotide position numbers) within the polynucleotide sequence of SEQ ID NO:X that delineate the preferred open reading frame (ORF) that encodes the amino acid sequence shown in the sequence listing and referenced in Table 1B as SEQ ID NO:Y (column 6). Column 7 lists residues comprising predicted epitopes contained in the polypeptides encoded by each of the preferred ORFs (SEQ ID NO:Y). Identification of potential

immunogenic regions was performed according to the method of Jameson and Wolf (CABIOS, 4; 181-186 (1988)); specifically, the Genetics Computer Group (GCG) implementation of this algorithm, embodied in the program PEPTIDESTRUCTURE (Wisconsin Package v10.0, Genetics Computer Group (GCG), Madison, Wisc.). This method returns a measure of the probability that a given residue is found on the surface of the protein. Regions where the antigenic index score is greater than 0.9 over at least 6 amino acids are indicated in Table 1B as "Predicted Epitopes". In particular embodiments, polypeptides of the invention comprise, or alternatively consist of, one, two, three, four, five or more of the predicted epitopes described in Table 1B. It will be appreciated that depending on the analytical criteria used to predict antigenic determinants, the exact address of the determinant may vary slightly. Column 8, "Tissue Distribution" shows the expression profile of tissue, cells, and/or cell line libraries which express the polynucleotides of the invention. The first number in column 8 (preceding the colon), represents the tissue/cell source identifier code corresponding to the key provided in Table 4. Expression of these polynucleotides was not observed in the other tissues and/or cell libraries tested. For those identifier codes in which the first two letters are not "AR", the second number in column 8 (following the colon), represents the number of times a sequence corresponding to the reference polynucleotide sequence (e.g., SEQ ID NO:X) was identified in the tissue/cell source. Those tissue/cell source identifier codes in which the first two letters are "AR" designate information generated using DNA array technology. Utilizing this technology, cDNAs were amplified by PCR and then transferred, in duplicate, onto the array. Gene expression was assayed through hybridization of first strand cDNA probes to the DNA array. cDNA probes were generated from total RNA extracted from a variety of different tissues and cell lines. Probe synthesis was performed in the presence of ^{33}P dCTP, using oligo(dT) to prime reverse transcription. After hybridization, high stringency washing conditions were employed to remove non-specific hybrids from the array. The remaining signal, emanating from each gene target, was measured using a Phosphorimager. Gene expression was reported as Phosphor Stimulating Luminescence (PSL) which reflects the level of phosphor signal generated from the probe hybridized to each of the gene targets represented on the array. A local background signal subtraction was performed before the total signal generated from each array was used to normalize gene expression between the different hybridizations. The value presented after "[array code]:" represents the mean of the duplicate values, following background subtraction and probe normalization. One of skill

in the art could routinely use this information to identify normal and/or diseased tissue(s) which show a predominant expression pattern of the corresponding polynucleotide of the invention or to identify polynucleotides which show predominant and/or specific tissue and/or cell expression. Column 9 provides the chromosomal location of polynucleotides corresponding to SEQ ID NO:X. Chromosomal location was determined by finding exact matches to EST and cDNA sequences contained in the NCBI (National Center for Biotechnology Information) UniGene database. Given a presumptive chromosomal location, disease locus association was determined by comparison with the Morbid Map, derived from Online Mendelian Inheritance in Man (Online Mendelian Inheritance in Man, OMIM™. McKusick-Nathans Institute for Genetic Medicine, Johns Hopkins University (Baltimore, MD) and National Center for Biotechnology Information, National Library of Medicine (Bethesda, MD) 2000. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>). If the putative chromosomal location of the Query overlaps with the chromosomal location of a Morbid Map entry, an OMIM identification number is disclosed in column 10 labeled "OMIM Disease Reference(s)". A key to the OMIM reference identification numbers is provided in Table 5.

Description of Table 1C

[21] Table 1C summarizes additional polynucleotides encompassed by the invention (including cDNA clones related to the sequences (Clone ID NO:Z), contig sequences (contig identifier (Contig ID:) contig nucleotide sequence identifiers (SEQ ID NO:X)), and genomic sequences (SEQ ID NO:B). The first column provides a unique clone identifier, "Clone ID NO:Z", for a cDNA clone related to each contig sequence. The second column provides the sequence identifier, "SEQ ID NO:X", for each contig sequence. The third column provides a unique contig identifier, "Contig ID:" for each contig sequence. The fourth column, provides a BAC identifier "BAC ID NO:A" for the BAC clone referenced in the corresponding row of the table. The fifth column provides the nucleotide sequence identifier, "SEQ ID NO:B" for a fragment of the BAC clone identified in column four of the corresponding row of the table. The sixth column, "Exon From-To", provides the location (i.e., nucleotide position numbers) within the polynucleotide sequence of SEQ ID NO:B which delineate certain polynucleotides of the invention that are also exemplary members of polynucleotide sequences that encode polypeptides of the invention (e.g., polypeptides containing amino acid sequences encoded

by the polynucleotide sequences delineated in column six, and fragments and variants thereof).

Description of Table 1D

[22] Table 1D: In preferred embodiments, the present invention encompasses a method of treating a disease or disorder listed in the "FEATURES OF PROTEIN" sections (below) and also as listed in the "Preferred Indications" column of Table 1D (below); comprising administering to a patient in which such treatment, prevention, or amelioration is desired a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) represented by Table 1A and Table 1D (in the same row as the disease or disorder to be treated is listed in the "Preferred Indications" column of Table 1D) in an amount effective to treat, prevent, or ameliorate the disease or disorder.

[23] As indicated in Table 1D, the polynucleotides, polypeptides, agonists, or antagonists of the present invention (including antibodies) can be used in assays to test for one or more biological activities. If these polynucleotides and polypeptides do exhibit activity in a particular assay, it is likely that these molecules may be involved in the diseases associated with the biological activity. Thus, the polynucleotides or polypeptides, or agonists or antagonists thereof (including antibodies) could be used to treat the associated disease.

[24] The present invention encompasses methods of preventing, treating, diagnosing, or ameliorating a disease or disorder. In preferred embodiments, the present invention encompasses a method of treating a disease or disorder listed in the "Preferred Indications" column of Table 1D; comprising administering to a patient in which such treatment, prevention, or amelioration is desired a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) in an amount effective to treat, prevent, diagnose, or ameliorate the disease or disorder. The first and second columns of Table 1D show the "Gene No." and "cDNA Clone ID No.", respectively, indicating certain nucleic acids and proteins (or antibodies against the same) of the invention (including polynucleotide, polypeptide, and antibody fragments or variants thereof) that may be used in preventing, treating, diagnosing, or ameliorating the disease(s) or disorder(s) indicated in the corresponding row in Column 3 of Table 1D.

[25] In another embodiment, the present invention also encompasses methods of preventing, treating, diagnosing, or ameliorating a disease or disorder listed in the "Preferred Indications" column of Table 1D; comprising administering to a patient

combinations of the proteins, nucleic acids, or antibodies of the invention (or fragments or variants thereof), sharing similar indications as shown in the corresponding rows in Column 3 of Table 1D.

[26] The "Preferred Indication" column describes diseases, disorders, and/or conditions that may be treated, prevented, diagnosed, or ameliorated by a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof).

[27] The recitation of "Cancer" in the "Preferred Indication" column indicates that the corresponding nucleic acid and protein, or antibody against the same, of the invention (or fragment or variant thereof) may be used for example, to diagnose, treat, prevent, and/or ameliorate diseases and/or disorders relating to neoplastic diseases (e.g., leukemias, cancers, and/or as described below under "Hyperproliferative Disorders").

[28] In specific embodiments, a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) having a "Cancer" recitation in the "Preferred Indication" column of Table 1D may be used for example, to diagnose, treat, prevent, and/or ameliorate a neoplasm located in a tissue selected from the group consisting of: colon, abdomen, bone, breast, digestive system, liver, pancreas, prostate, peritoneum, lung, blood (e.g., leukemia), endocrine glands (adrenal, parathyroid, pituitary, testicles, ovary, thymus, thyroid), uterus, eye, head and neck, nervous (central and peripheral), lymphatic system, pelvic, skin, soft tissue, spleen, thoracic, and urogenital.

[29] In specific embodiments, a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) having a "Cancer" recitation in the "Preferred Indication" column of Table 1D, may be used for example, to diagnose, treat, prevent, and/or ameliorate a pre-neoplastic condition, selected from the group consisting of: hyperplasia (e.g., endometrial hyperplasia and/or as described in the section entitled "Hyperproliferative Disorders"), metaplasia (e.g., connective tissue metaplasia, atypical metaplasia, and/or as described in the section entitled "Hyperproliferative Disorders"), and/or dysplasia (e.g., cervical dysplasia, and bronchopulmonary dysplasia).

[30] In another specific embodiment, a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) having a "Cancer" recitation in the "Preferred Indication" column of Table 1D, may be used for example, to diagnose, treat, prevent, and/or ameliorate a benign dysproliferative disorder selected from the group consisting of: benign tumors, fibrocystic conditions, tissue hypertrophy, and/or as described in the section entitled "Hyperproliferative Disorders".

[31] The recitation of “Immune/Hematopoietic” in the “Preferred Indication” column indicates that the corresponding nucleic acid and protein, or antibody against the same, of the invention (or fragment or variant thereof), may be used for example, to diagnose, treat, prevent, and/or ameliorate diseases and/or disorders relating to neoplastic diseases (e.g., as described below under “Hyperproliferative Disorders”), blood disorders (e.g., as described below under “Immune Activity” “Cardiovascular Disorders” and/or “Blood-Related Disorders”), and infections (e.g., as described below under “Infectious Disease”).

[32] In specific embodiments, a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) having the “Immune/Hematopoietic” recitation in the “Preferred Indication” column of Table 1D, may be used for example, to diagnose, treat, prevent, and/or ameliorate a disease or disorder selected from the group consisting of: anemia, pancytopenia, leukopenia, thrombocytopenia, leukemias, Hodgkin’s disease, non-Hodgkin’s lymphoma, acute lymphocytic anemia (ALL), plasmacytomas, multiple myeloma, Burkitt’s lymphoma, arthritis, asthma, AIDS, autoimmune disease, rheumatoid arthritis, granulomatous disease, immune deficiency, inflammatory bowel disease, sepsis, neutropenia, neutrophilia, psoriasis, immune reactions to transplanted organs and tissues, systemic lupus erythematosus, hemophilia, hypercoagulation, diabetes mellitus, endocarditis, meningitis, Lyme Disease, and allergies.

[33] The recitation of “Reproductive” in the “Preferred Indication” column indicates that the corresponding nucleic acid and protein, or antibody against the same, of the invention (or fragment or variant thereof), may be used for example, to diagnose, treat, prevent, and/or ameliorate diseases and/or disorders relating to neoplastic diseases (e.g., as described below under “Hyperproliferative Disorders”), and disorders of the reproductive system (e.g., as described below under “Reproductive System Disorders”).

[34] In specific embodiments, a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) having a “Reproductive” recitation in the “Preferred Indication” column of Table 1D, may be used for example, to diagnose, treat, prevent, and/or ameliorate a disease or disorder selected from the group consisting of: cryptorchism, prostatitis, inguinal hernia, varicocele, leydig cell tumors, verrucous carcinoma, prostatitis, malacoplakia, Peyronie’s disease, penile carcinoma, squamous cell hyperplasia, dysmenorrhea, ovarian adenocarcinoma, Turner’s syndrome, mucopurulent cervicitis, Sertoli-leydig tumors, ovarian cancer, uterine cancer, pelvic inflammatory disease, testicular cancer, prostate cancer, Klinefelter’s syndrome, Young’s syndrome,

premature ejaculation, diabetes mellitus, cystic fibrosis, Kartagener's syndrome, testicular atrophy, testicular feminization, anorchia, ectopic testis, epididymitis, orchitis, gonorrhea, syphilis, testicular torsion, vasitis nodosa, germ cell tumors, stromal tumors, dysmenorrhea, retroverted uterus, endometriosis, fibroids, adenomyosis, anovulatory bleeding, amenorrhea, Cushing's syndrome, hydatidiform moles, Asherman's syndrome, premature menopause, precocious puberty, uterine polyps, dysfunctional uterine bleeding, cervicitis, chronic cervicitis, mucopurulent cervicitis, cervical dysplasia, cervical polyps, Nabothian cysts, cervical erosion, cervical incompetence, cervical neoplasms, pseudohermaphroditism, and premenstrual syndrome.

[35] The recitation of "Musculoskeletal" in the "Preferred Indication" column indicates that the corresponding nucleic acid and protein, or antibody against the same, of the invention (or fragment or variant thereof), may be used for example, to diagnose, treat, prevent, and/or ameliorate diseases and/or disorders relating to neoplastic diseases (e.g., as described below under "Hyperproliferative Disorders"), and disorders of the immune system (e.g., as described below under "Immune Activity").

[36] In specific embodiments, a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) having a "Musculoskeletal" recitation in the "Preferred Indication" column of Table 1D, may be used for example, to diagnose, treat, prevent, and/or ameliorate a disease or disorder selected from the group consisting of: bone cancers (e.g., osteochondromas, benign chondromas, chondroblastoma, chondromyxoid fibromas, osteoid osteomas, giant cell tumors, multiple myeloma, osteosarcomas), Paget's Disease, rheumatoid arthritis, systemic lupus erythematosus, osteomyelitis, Lyme Disease, gout, bursitis, tendonitis, osteoporosis, osteoarthritis, muscular dystrophy, mitochondrial myopathy, cachexia, and multiple sclerosis.

[37] The recitation of "Cardiovascular" in the "Preferred Indication" column indicates that the corresponding nucleic acid and protein, or antibody against the same, of the invention (or fragment or variant thereof), may be used for example, to diagnose, treat, prevent, and/or ameliorate diseases and/or disorders relating to neoplastic diseases (e.g., as described below under "Hyperproliferative Disorders"), and disorders of the cardiovascular system (e.g., as described below under "Cardiovascular Disorders").

[38] In specific embodiments, a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) having a "Cardiovascular" recitation in the "Preferred Indication" column of Table 1D, may be used for example, to diagnose, treat, prevent, and/or ameliorate a disease or disorder selected from the group consisting of: myxomas,

fibromas, rhabdomyomas, cardiovascular abnormalities (e.g., congenital heart defects, cerebral arteriovenous malformations, septal defects), heart disease (e.g., heart failure, congestive heart disease, arrhythmia, tachycardia, fibrillation, pericardial Disease, endocarditis), cardiac arrest, heart valve disease (e.g., stenosis, regurgitation, prolapse), vascular disease (e.g., hypertension, coronary artery disease, angina, aneurysm, arteriosclerosis, peripheral vascular disease), hyponatremia, hypernatremia, hypokalemia, and hyperkalemia.

[39] The recitation of “Mixed Fetal” in the “Preferred Indication” column indicates that the corresponding nucleic acid and protein, or antibody against the same, of the invention (or fragment or variant thereof), may be used for example, to diagnose, treat, prevent, and/or ameliorate diseases and/or disorders relating to neoplastic diseases (e.g., as described below under “Hyperproliferative Disorders”).

[40] In specific embodiments, a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) having a “Mixed Fetal” recitation in the “Preferred Indication” column of Table 1D, may be used for example, to diagnose, treat, prevent, and/or ameliorate a disease or disorder selected from the group consisting of: spina bifida, hydranencephaly, neurofibromatosis, fetal alcohol syndrome, diabetes mellitus, PKU, Down’s syndrome, Patau syndrome, Edwards syndrome, Turner syndrome, Apert syndrome, Carpenter syndrome, Conradi syndrome, Crouzon syndrome, cutis laxa, Cornelia de Lange syndrome, Ellis-van Creveld syndrome, Holt-Oram syndrome, Kartagener syndrome, Meckel-Gruber syndrome, Noonan syndrome, Pallister-Hall syndrome, Rubinstein-Taybi syndrome, Scimitar syndrome, Smith-Lemli-Opitz syndrome, thrombocytopenia-absent radius (TAR) syndrome, Treacher Collins syndrome, Williams syndrome, Hirschsprung’s disease, Meckel’s diverticulum, polycystic kidney disease, Turner’s syndrome, and gonadal dysgenesis, Klippel-Feil syndrome, Osteogenesis imperfecta, muscular dystrophy, Tay-Sachs disease, Wilm’s tumor, neuroblastoma, and retinoblastoma.

[41] The recitation of “Excretory” in the “Preferred Indication” column indicates that the corresponding nucleic acid and protein, or antibody against the same, of the invention (or fragment or variant thereof), may be used for example, to diagnose, treat, prevent, and/or ameliorate diseases and/or disorders relating to neoplastic diseases (e.g., as described below under “Hyperproliferative Disorders”) and renal disorders (e.g., as described below under “Renal Disorders”).

[42] In specific embodiments, a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) having a “Excretory” recitation in the “Preferred Indication” column of Table 1D, may be used for example, to diagnose, treat, prevent, and/or ameliorate a disease or disorder selected from the group consisting of: bladder cancer, prostate cancer, benign prostatic hyperplasia, bladder disorders (e.g., urinary incontinence, urinary retention, urinary obstruction, urinary tract Infections, interstitial cystitis, prostatitis, neurogenic bladder, hematuria), renal disorders (e.g., hydronephrosis, proteinuria, renal failure, pyelonephritis, urolithiasis, reflux nephropathy, and unilateral obstructive uropathy).

[43] The recitation of “Neural/Sensory” in the “Preferred Indication” column indicates that the corresponding nucleic acid and protein, or antibody against the same, of the invention (or fragment or variant thereof), may be used for example, to diagnose, treat, prevent, and/or ameliorate diseases and/or disorders relating to neoplastic diseases (e.g., as described below under “Hyperproliferative Disorders”) and diseases or disorders of the nervous system (e.g., as described below under “Neural Activity and Neurological Diseases”).

[44] In specific embodiments, a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) having a “Neural/Sensory” recitation in the “Preferred Indication” column of Table 1D, may be used for example, to diagnose, treat, prevent, and/or ameliorate a disease or disorder selected from the group consisting of: brain cancer (e.g., brain stem glioma, brain tumors, central nervous system (Primary) lymphoma, central nervous system lymphoma, cerebellar astrocytoma, and cerebral astrocytoma, neurodegenerative disorders (e.g., Alzheimer’s Disease, Creutzfeldt-Jakob Disease, Parkinson’s Disease, and Idiopathic Presenile Dementia), encephalomyelitis, cerebral malaria, meningitis, metabolic brain diseases (e.g., phenylketonuria and pyruvate carboxylase deficiency), cerebellar ataxia, ataxia telangiectasia, and AIDS Dementia Complex, schizophrenia, attention deficit disorder, hyperactive attention deficit disorder, autism, and obsessive compulsive disorders.

[45] The recitation of “Respiratory” in the “Preferred Indication” column indicates that the corresponding nucleic acid and protein, or antibody against the same, of the invention (or fragment or variant thereof), may be used for example, to diagnose, treat, prevent, and/or ameliorate diseases and/or disorders relating to neoplastic diseases (e.g., as described below under “Hyperproliferative Disorders”) and diseases or disorders of the respiratory system (e.g., as described below under “Respiratory Disorders”).

[46] In specific embodiments, a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) having a “Respiratory” recitation in the “Preferred Indication” column of Table 1D, may be used for example, to diagnose, treat, prevent, and/or ameliorate a disease or disorder selected from the group consisting of: cancers of the respiratory system such as larynx cancer, pharynx cancer, trachea cancer, epiglottis cancer, lung cancer, squamous cell carcinomas, small cell (oat cell) carcinomas, large cell carcinomas, and adenocarcinomas. Allergic reactions, cystic fibrosis, sarcoidosis, histiocytosis X, infiltrative lung diseases (e.g., pulmonary fibrosis and lymphoid interstitial pneumonia), obstructive airway diseases (e.g., asthma, emphysema, chronic or acute bronchitis), occupational lung diseases (e.g., silicosis and asbestosis), pneumonia, and pleurisy.

[47] The recitation of “Endocrine” in the “Preferred Indication” column indicates that the corresponding nucleic acid and protein, or antibody against the same, of the invention (or fragment or variant thereof), may be used for example, to diagnose, treat, prevent, and/or ameliorate diseases and/or disorders relating to neoplastic diseases (e.g., as described below under “Hyperproliferative Disorders”) and diseases or disorders of the respiratory system (e.g., as described below under “Respiratory Disorders”), renal disorders (e.g., as described below under “Renal Disorders”), and disorders of the endocrine system (e.g., as described below under “Endocrine Disorders”).

[48] In specific embodiments, a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) having an “Endocrine” recitation in the “Preferred Indication” column of Table 1D, may be used for example, to diagnose, treat, prevent, and/or ameliorate a disease or disorder selected from the group consisting of: cancers of endocrine tissues and organs (e.g., cancers of the hypothalamus, pituitary gland, thyroid gland, parathyroid glands, pancreas, adrenal glands, ovaries, and testes), diabetes (e.g., diabetes insipidus, type I and type II diabetes mellitus), obesity, disorders related to pituitary glands (e.g., hyperpituitarism, hypopituitarism, and pituitary dwarfism), hypothyroidism, hyperthyroidism, goiter, reproductive disorders (e.g. male and female infertility), disorders related to adrenal glands (e.g., Addison’s Disease, corticosteroid deficiency, and Cushing’s Syndrome), kidney cancer (e.g., hypernephroma, transitional cell cancer, and Wilm’s tumor), diabetic nephropathy, interstitial nephritis, polycystic kidney disease, glomerulonephritis (e.g., IgM mesangial proliferative glomerulonephritis and glomerulonephritis caused by autoimmune disorders; such as Goodpasture’s syndrome), and nephrocalcinosis.

[49] The recitation of “Digestive” in the “Preferred Indication” column indicates that the corresponding nucleic acid and protein, or antibody against the same, of the invention (or fragment or variant thereof), may be used for example, to diagnose, treat, prevent, and/or ameliorate diseases and/or disorders relating to neoplastic diseases (e.g., as described below under “Hyperproliferative Disorders”) and diseases or disorders of the gastrointestinal system (e.g., as described below under “Gastrointestinal Disorders”).

[50] In specific embodiments, a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) having a “Digestive” recitation in the “Preferred Indication” column of Table 1D, may be used for example, to diagnose, treat, prevent, and/or ameliorate a disease or disorder selected from the group consisting of: ulcerative colitis, appendicitis, Crohn’s disease, hepatitis, hepatic encephalopathy, portal hypertension, cholelithiasis, cancer of the digestive system (e.g., biliary tract cancer, stomach cancer, colon cancer, gastric cancer, pancreatic cancer, cancer of the bile duct, tumors of the colon (e.g., polyps or cancers), and cirrhosis), pancreatitis, ulcerative disease, pyloric stenosis, gastroenteritis, gastritis, gastric atrophy, benign tumors of the duodenum, distension, irritable bowel syndrome, malabsorption, congenital disorders of the small intestine, bacterial and parasitic infection, megacolon, Hirschsprung’s disease, aganglionic megacolon, acquired megacolon, colitis, anorectal disorders (e.g., anal fistulas, hemorrhoids), congenital disorders of the liver (e.g., Wilson’s disease, hemochromatosis, cystic fibrosis, biliary atresia, and alpha1-antitrypsin deficiency), portal hypertension, cholelithiasis, and jaundice.

[51] The recitation of “Connective/Epithelial” in the “Preferred Indication” column indicates that the corresponding nucleic acid and protein, or antibody against the same, of the invention (or fragment or variant thereof), may be used for example, to diagnose, treat, prevent, and/or ameliorate diseases and/or disorders relating to neoplastic diseases (e.g., as described below under “Hyperproliferative Disorders”), cellular and genetic abnormalities (e.g., as described below under “Diseases at the Cellular Level “), angiogenesis (e.g., as described below under “Anti-Angiogenesis Activity “), and or to promote or inhibit regeneration (e.g., as described below under “Regeneration “), and wound healing (e.g., as described below under “Wound Healing and Epithelial Cell Proliferation”).

[52] In specific embodiments, a protein, nucleic acid, or antibody of the invention (or fragment or variant thereof) having a “Connective/Epithelial” recitation in the “Preferred Indication” column of Table 1D, may be used for example, to diagnose, treat, prevent, and/or ameliorate a disease or disorder selected from the group consisting of:

connective tissue metaplasia, mixed connective tissue disease, focal epithelial hyperplasia, epithelial metaplasia, mucoepithelial dysplasia, graft v. host disease, polymyositis, cystic hyperplasia, cerebral dysplasia, tissue hypertrophy, Alzheimer's disease, lymphoproliferative disorder, Waldenström's macroglobulinemia, Crohn's disease, pernicious anemia, idiopathic Addison's disease, glomerulonephritis, bullous pemphigoid, Sjögren's syndrome, diabetes mellitus, cystic fibrosis, osteoblastoma, osteoclastoma, osteosarcoma, chondrosarcoma, osteoporosis, osteoarthritis, periodontal disease, wound healing, relapsing polychondritis, vasculitis, polyarteritis nodosa, Wegener's granulomatosis, cellulitis, rheumatoid arthritis, psoriatic arthritis, discoid lupus erythematosus, systemic lupus erythematosus, scleroderma, CREST syndrome, Sjögren's syndrome, polymyositis, dermatomyositis, mixed connective tissue disease, relapsing polychondritis, vasculitis, Henoch-Schönlein syndrome, erythema nodosum, polyarteritis nodosa, temporal (giant cell) arteritis, Takayasu's arteritis, Wegener's granulomatosis, Reiter's syndrome, Behçet's syndrome, ankylosing spondylitis, cellulitis, keloids, Ehler Danlos syndrome, Marfan syndrome, pseudoxanthoma elasticum, osteogenesis imperfecta, chondrodysplasias, epidermolysis bullosa, Alport syndrome, and cutis laxa.

Description of Table 2

[53] Table 2 summarizes homology and features of some of the polypeptides of the invention. The first column provides a unique clone identifier, "Clone ID NO:Z", corresponding to a cDNA clone disclosed in Table 1A or 1B. The second column provides the unique contig identifier, "Contig ID:" corresponding to contigs in Table 1B and allowing for correlation with the information in Table 1B. The third column provides the sequence identifier, "SEQ ID NO:X", for the contig polynucleotide sequence. The fourth column provides the analysis method by which the homology/identity disclosed in the Table was determined. Comparisons were made between polypeptides encoded by the polynucleotides of the invention and either a non-redundant protein database (herein referred to as "NR"), or a database of protein families (herein referred to as "PFAM") as further described below. The fifth column provides a description of the PFAM/NR hit having a significant match to a polypeptide of the invention. Column six provides the accession number of the PFAM/NR hit disclosed in the fifth column. Column seven, "Score/Percent Identity", provides a quality score or the percent identity, of the hit disclosed in columns five and six. Columns 8 and 9, "NT From" and "NT To" respectively, delineate the polynucleotides in "SEQ ID NO:X" that encode a polypeptide

having a significant match to the PFAM/NR database as disclosed in the fifth and sixth columns. In specific embodiments polypeptides of the invention comprise, or alternatively consist of, an amino acid sequence encoded by a polynucleotide in SEQ ID NO:X as delineated in columns 8 and 9, or fragments or variants thereof.

Description of Table 3

[54] Table 3 provides polynucleotide sequences that may be disclaimed according to certain embodiments of the invention. The first column provides a unique clone identifier, "Clone ID", for a cDNA clone related to contig sequences disclosed in Table 1B. The second column provides the sequence identifier, "SEQ ID NO:X", for contig sequences disclosed in Table 1A and/or 1B. The third column provides the unique contig identifier, "Contig ID:", for contigs disclosed in Table 1B. The fourth column provides a unique integer 'a' where 'a' is any integer between 1 and the final nucleotide minus 15 of SEQ ID NO:X, and the fifth column provides a unique integer 'b' where 'b' is any integer between 15 and the final nucleotide of SEQ ID NO:X, where both a and b correspond to the positions of nucleotide residues shown in SEQ ID NO:X, and where b is greater than or equal to a + 14. For each of the polynucleotides shown as SEQ ID NO:X, the uniquely defined integers can be substituted into the general formula of a-b, and used to describe polynucleotides which may be preferably excluded from the invention. In certain embodiments, preferably excluded from the invention are at least one, two, three, four, five, ten, or more of the polynucleotide sequence(s) having the accession number(s) disclosed in the sixth column of this Table (including for example, published sequence in connection with a particular BAC clone). In further embodiments, preferably excluded from the invention are the specific polynucleotide sequence(s) contained in the clones corresponding to at least one, two, three, four, five, ten, or more of the available material having the accession numbers identified in the sixth column of this Table (including for example, the actual sequence contained in an identified BAC clone).

Description of Table 4

[55] Table 4 provides a key to the tissue/cell source identifier code disclosed in Table 1B, column 8. Column 1 provides the tissue/cell source identifier code disclosed in Table 1B, Column 8. Columns 2-5 provide a description of the tissue or cell source. Codes corresponding to diseased tissues are indicated in column 6 with the word "disease". The use of the word "disease" in column 6 is non-limiting. The tissue or cell source may be

specific (e.g. a neoplasm), or may be disease-associated (e.g., a tissue sample from a normal portion of a diseased organ). Furthermore, tissues and/or cells lacking the "disease" designation may still be derived from sources directly or indirectly involved in a disease state or disorder, and therefore may have a further utility in that disease state or disorder. In numerous cases where the tissue/cell source is a library, column 7 identifies the vector used to generate the library.

Description of Table 5

[56] Table 5 provides a key to the OMIM reference identification numbers disclosed in Table 1B, column 10. OMIM reference identification numbers (Column 1) were derived from Online Mendelian Inheritance in Man (Online Mendelian Inheritance in Man, OMIM. McKusick-Nathans Institute for Genetic Medicine, Johns Hopkins University (Baltimore, MD) and National Center for Biotechnology Information, National Library of Medicine, (Bethesda, MD) 2000. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>). Column 2 provides diseases associated with the cytologic band disclosed in Table 1B, column 9, as determined using the Morbid Map database.

Description of Table 6

[57] Table 6 summarizes some of the ATCC Deposits, Deposit dates, and ATCC designation numbers of deposits made with the ATCC in connection with the present application. These deposits were made in addition to those described in the Table 1A.

Description of Table 7

[58] Table 7 shows the cDNA libraries sequenced, and ATCC designation numbers and vector information relating to these cDNA libraries.

[59] The first column shows the first four letters indicating the Library from which each library clone was derived. The second column indicates the catalogued tissue description for the corresponding libraries. The third column indicates the vector containing the corresponding clones. The fourth column shows the ATCC deposit designation for each library clone as indicated by the deposit information in Table 6.

Definitions

[60] The following definitions are provided to facilitate understanding of certain terms used throughout this specification.

[61] In the present invention, "isolated" refers to material removed from its original environment (e.g., the natural environment if it is naturally occurring), and thus is altered "by the hand of man" from its natural state. For example, an isolated polynucleotide could be part of a vector or a composition of matter, or could be contained within a cell, and still be "isolated" because that vector, composition of matter, or particular cell is not the original environment of the polynucleotide. The term "isolated" does not refer to genomic or cDNA libraries, whole cell total or mRNA preparations, genomic DNA preparations (including those separated by electrophoresis and transferred onto blots), sheared whole cell genomic DNA preparations or other compositions where the art demonstrates no distinguishing features of the polynucleotide/sequences of the present invention.

[62] In the present invention, a "secreted" protein refers to those proteins capable of being directed to the ER, secretory vesicles, or the extracellular space as a result of a signal sequence, as well as those proteins released into the extracellular space without necessarily containing a signal sequence. If the secreted protein is released into the extracellular space, the secreted protein can undergo extracellular processing to produce a "mature" protein. Release into the extracellular space can occur by many mechanisms, including exocytosis and proteolytic cleavage.

[63] As used herein, a "polynucleotide" refers to a molecule having a nucleic acid sequence encoding SEQ ID NO:Y or a fragment or variant thereof (e.g., the polypeptide delineated in columns fourteen and fifteen of Table 1A); a nucleic acid sequence contained in SEQ ID NO:X (as described in column 5 of Table 1A and/or column 3 of Table 1B) or the complement thereof; a cDNA sequence contained in Clone ID NO:Z (as described in column 2 of Table 1A and/or 1B and contained within a library deposited with the ATCC); a nucleotide sequence encoding the polypeptide encoded by a nucleotide sequence in SEQ ID NO:B as defined in column 6 (EXON From-To) of Table 1C or a fragment or variant thereof; or a nucleotide coding sequence in SEQ ID NO:B as defined

in column 6 of Table 1C or the complement thereof. For example, the polynucleotide can contain the nucleotide sequence of the full length cDNA sequence, including the 5' and 3' untranslated sequences, the coding region, as well as fragments, epitopes, domains, and variants of the nucleic acid sequence. Moreover, as used herein, a "polypeptide" refers to a molecule having an amino acid sequence encoded by a polynucleotide of the invention as broadly defined (obviously excluding poly-Phenylalanine or poly-Lysine peptide sequences which result from translation of a polyA tail of a sequence corresponding to a cDNA).

[64] In the present invention, "SEQ ID NO:X" was often generated by overlapping sequences contained in multiple clones (contig analysis). A representative clone containing all or most of the sequence for SEQ ID NO:X is deposited at Human Genome Sciences, Inc. (HGS) in a catalogued and archived library. As shown, for example, in column 2 of Table 1B, each clone is identified by a cDNA Clone ID (identifier generally referred to herein as Clone ID NO:Z). Each Clone ID is unique to an individual clone and the Clone ID is all the information needed to retrieve a given clone from the HGS library. Table 7 provides a list of the deposited cDNA libraries. One can use the Clone ID NO:Z to determine the library source by reference to Tables 6 and 7. Table 7 lists the deposited cDNA libraries by name and links each library to an ATCC Deposit. Library names contain four characters, for example, "HTWE." The name of a cDNA clone (Clone ID) isolated from that library begins with the same four characters, for example "HTWEP07". As mentioned below, Table 1A and/or 1B correlates the Clone ID names with SEQ ID NO:X. Thus, starting with an SEQ ID NO:X, one can use Tables 1A, 1B, 6, 7, and 9 to determine the corresponding Clone ID, which library it came from and which ATCC deposit the library is contained in. Furthermore, it is possible to retrieve a given cDNA clone from the source library by techniques known in the art and described elsewhere herein. The ATCC is located at 10801 University Boulevard, Manassas, Virginia 20110-2209, USA. The ATCC deposits were made pursuant to the terms of the Budapest Treaty on the international recognition of the deposit of microorganisms for the purposes of patent procedure.

[65] In specific embodiments, the polynucleotides of the invention are at least 15, at least 30, at least 50, at least 100, at least 125, at least 500, or at least 1000 continuous nucleotides but are less than or equal to 300 kb, 200 kb, 100 kb, 50 kb, 15 kb, 10 kb,

7.5kb, 5 kb, 2.5 kb, 2.0 kb, or 1 kb, in length. In a further embodiment, polynucleotides of the invention comprise a portion of the coding sequences, as disclosed herein, but do not comprise all or a portion of any intron. In another embodiment, the polynucleotides comprising coding sequences do not contain coding sequences of a genomic flanking gene (i.e., 5' or 3' to the gene of interest in the genome). In other embodiments, the polynucleotides of the invention do not contain the coding sequence of more than 1000, 500, 250, 100, 50, 25, 20, 15, 10, 5, 4, 3, 2, or 1 genomic flanking gene(s).

[66] A "polynucleotide" of the present invention also includes those polynucleotides capable of hybridizing, under stringent hybridization conditions, to sequences contained in SEQ ID NO:X, or the complement thereof (e.g., the complement of any one, two, three, four, or more of the polynucleotide fragments described herein), the polynucleotide sequence delineated in columns 7 and 8 of Table 1A or the complement thereof, the polynucleotide sequence delineated in columns 8 and 9 of Table 2 or the complement thereof, and/or cDNA sequences contained in Clone ID NO:Z (e.g., the complement of any one, two, three, four, or more of the polynucleotide fragments, or the cDNA clone within the pool of cDNA clones deposited with the ATCC, described herein), and/or the polynucleotide sequence delineated in column 6 of Table 1C or the complement thereof. "Stringent hybridization conditions" refers to an overnight incubation at 42 degree C in a solution comprising 50% formamide, 5x SSC (750 mM NaCl, 75 mM trisodium citrate), 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 μ g/ml denatured, sheared salmon sperm DNA, followed by washing the filters in 0.1x SSC at about 65 degree C.

[67] Also contemplated are nucleic acid molecules that hybridize to the polynucleotides of the present invention at lower stringency hybridization conditions. Changes in the stringency of hybridization and signal detection are primarily accomplished through the manipulation of formamide concentration (lower percentages of formamide result in lowered stringency); salt conditions, or temperature. For example, lower stringency conditions include an overnight incubation at 37 degree C in a solution comprising 6X SSPE (20X SSPE = 3M NaCl; 0.2M NaH_2PO_4 ; 0.02M EDTA, pH 7.4), 0.5% SDS, 30% formamide, 100 ug/ml salmon sperm blocking DNA; followed by washes at 50 degree C with 1XSSPE, 0.1% SDS. In addition, to achieve even lower stringency,

washes performed following stringent hybridization can be done at higher salt concentrations (e.g. 5X SSC).

[68] Note that variations in the above conditions may be accomplished through the inclusion and/or substitution of alternate blocking reagents used to suppress background in hybridization experiments. Typical blocking reagents include Denhardt's reagent, BLOTTO, heparin, denatured salmon sperm DNA, and commercially available proprietary formulations. The inclusion of specific blocking reagents may require modification of the hybridization conditions described above, due to problems with compatibility.

[69] Of course, a polynucleotide which hybridizes only to polyA⁺ sequences (such as any 3' terminal polyA⁺ tract of a cDNA shown in the sequence listing), or to a complementary stretch of T (or U) residues, would not be included in the definition of "polynucleotide," since such a polynucleotide would hybridize to any nucleic acid molecule containing a poly (A) stretch or the complement thereof (e.g., practically any double-stranded cDNA clone generated using oligo dT as a primer).

[70] The polynucleotide of the present invention can be composed of any polyribonucleotide or polydeoxribonucleotide, which may be unmodified RNA or DNA or modified RNA or DNA. For example, polynucleotides can be composed of single- and double-stranded DNA, DNA that is a mixture of single- and double-stranded regions, single- and double-stranded RNA, and RNA that is mixture of single- and double-stranded regions, hybrid molecules comprising DNA and RNA that may be single-stranded or, more typically, double-stranded or a mixture of single- and double-stranded regions. In addition, the polynucleotide can be composed of triple-stranded regions comprising RNA or DNA or both RNA and DNA. A polynucleotide may also contain one or more modified bases or DNA or RNA backbones modified for stability or for other reasons. "Modified" bases include, for example, tritylated bases and unusual bases such as inosine. A variety of modifications can be made to DNA and RNA; thus, "polynucleotide" embraces chemically, enzymatically, or metabolically modified forms.

[71] In specific embodiments, the polynucleotides of the invention are at least 15, at least 30, at least 50, at least 100, at least 125, at least 500, or at least 1000 continuous

nucleotides but are less than or equal to 300 kb, 200 kb, 100 kb, 50 kb, 15 kb, 10 kb, 7.5kb, 5 kb, 2.5 kb, 2.0 kb, or 1 kb, in length. In a further embodiment, polynucleotides of the invention comprise a portion of the coding sequences, as disclosed herein, but do not comprise all or a portion of any intron. In another embodiment, the polynucleotides comprising coding sequences do not contain coding sequences of a genomic flanking gene (i.e., 5' or 3' to the gene of interest in the genome). In other embodiments, the polynucleotides of the invention do not contain the coding sequence of more than 1000, 500, 250, 100, 50, 25, 20, 15, 10, 5, 4, 3, 2, or 1 genomic flanking gene(s).

[72] "SEQ ID NO:X" refers to a polynucleotide sequence described in column 5 of Table 1A, while "SEQ ID NO:Y" refers to a polypeptide sequence described in column 10 of Table 1A. SEQ ID NO:X is identified by an integer specified in column 6 of Table 1A. The polypeptide sequence SEQ ID NO:Y is a translated open reading frame (ORF) encoded by polynucleotide SEQ ID NO:X. The polynucleotide sequences are shown in the sequence listing immediately followed by all of the polypeptide sequences. Thus, a polypeptide sequence corresponding to polynucleotide sequence SEQ ID NO:2 is the first polypeptide sequence shown in the sequence listing. The second polypeptide sequence corresponds to the polynucleotide sequence shown as SEQ ID NO:3, and so on.

[73] The polypeptide of the present invention can be composed of amino acids joined to each other by peptide bonds or modified peptide bonds, i.e., peptide isosteres, and may contain amino acids other than the 20 gene-encoded amino acids. The polypeptides may be modified by either natural processes, such as posttranslational processing, or by chemical modification techniques which are well known in the art. Such modifications are well described in basic texts and in more detailed monographs, as well as in a voluminous research literature. Modifications can occur anywhere in a polypeptide, including the peptide backbone, the amino acid side-chains and the amino or carboxyl termini. It will be appreciated that the same type of modification may be present in the same or varying degrees at several sites in a given polypeptide. Also, a given polypeptide may contain many types of modifications. Polypeptides may be branched, for example, as a result of ubiquitination, and they may be cyclic, with or without branching. Cyclic, branched, and branched cyclic polypeptides may result from posttranslation natural processes or may be made by synthetic methods. Modifications include acetylation, acylation, ADP-ribosylation, amidation, covalent attachment of flavin,

covalent attachment of a heme moiety, covalent attachment of a nucleotide or nucleotide derivative, covalent attachment of a lipid or lipid derivative, covalent attachment of phosphatidylinositol, cross-linking, cyclization, disulfide bond formation, demethylation, formation of covalent cross-links, formation of cysteine, formation of pyroglutamate, formylation, gamma-carboxylation, glycosylation, GPI anchor formation, hydroxylation, iodination, methylation, myristoylation, oxidation, pegylation, proteolytic processing, phosphorylation, prenylation, racemization, selenoylation, sulfation, transfer-RNA mediated addition of amino acids to proteins such as arginylation, and ubiquitination. (See, for instance, PROTEINS - STRUCTURE AND MOLECULAR PROPERTIES, 2nd Ed., T. E. Creighton, W. H. Freeman and Company, New York (1993); POSTTRANSLATIONAL COVALENT MODIFICATION OF PROTEINS, B. C. Johnson, Ed., Academic Press, New York, pgs. 1-12 (1983); Seifter et al., Meth. Enzymol. 182:626-646 (1990); Rattan et al., Ann. N.Y. Acad. Sci. 663:48-62 (1992)).

[74] "SEQ ID NO:X" refers to a polynucleotide sequence described, for example, in Tables 1A, 1B or 2, while "SEQ ID NO:Y" refers to a polypeptide sequence described in column 11 of Table 1A and or column 6 of Table 1B. SEQ ID NO:X is identified by an integer specified in column 4 of Table 1B. The polypeptide sequence SEQ ID NO:Y is a translated open reading frame (ORF) encoded by polynucleotide SEQ ID NO:X. "Clone ID NO:Z" refers to a cDNA clone described in column 2 of Table 1A and/or 1B.

[75] "A polypeptide having functional activity" refers to a polypeptide capable of displaying one or more known functional activities associated with a full-length (complete) protein. Such functional activities include, but are not limited to, biological activity, antigenicity [ability to bind (or compete with a polypeptide for binding) to an anti-polypeptide antibody], immunogenicity (ability to generate antibody which binds to a specific polypeptide of the invention), ability to form multimers with polypeptides of the invention, and ability to bind to a receptor or ligand for a polypeptide.

[76] The polypeptides of the invention can be assayed for functional activity (e.g. biological activity) using or routinely modifying assays known in the art, as well as assays described herein. Specifically, one of skill in the art may routinely assay secreted polypeptides (including fragments and variants) of the invention for activity using assays as described in the examples section below.

[77] "A polypeptide having biological activity" refers to a polypeptide exhibiting activity similar to, but not necessarily identical to, an activity of a polypeptide of the present invention, including mature forms, as measured in a particular biological assay, with or without dose dependency. In the case where dose dependency does exist, it need not be identical to that of the polypeptide, but rather substantially similar to the dose-dependence in a given activity as compared to the polypeptide of the present invention (i.e., the candidate polypeptide will exhibit greater activity or not more than about 25-fold less and, preferably, not more than about tenfold less activity, and most preferably, not more than about three-fold less activity relative to the polypeptide of the present invention).

0955003-091204

TABLE 1A

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1	H2CBD20	203917 04/08/99	pBluescript SK-	11	1256	1	1256		27	2608	1			17
2	H2CBH91	203917 04/08/99	pBluescript SK-	12	1760	225	1760	309	309	2609	1	36	37	40
3	H2LBA54	203917 04/08/99	pBluescript SK-	13	1529	1	1529	386	386	2610	1			5
4	H2LBB09	203917 04/08/99	pBluescript SK-	14	2114	1	2114	197	197	2611	1	17	18	36
5	H2LBB09	203917 04/08/99	pBluescript SK-	15	2158	109	2158	236	236	2612	1	17	18	36
6	H2MAC63	203917 04/08/99	pBluescript SK-	16	443	1	443	172	172	2613	1	23	24	32
7	H2MBA76	203917 04/08/99	pBluescript SK-	17	1315	482	1302	717	717	2614	1	20	21	112
8	H2MBF60	203917 04/08/99	pBluescript SK-	18	1174	1	1174	320	320	2615	1	25	26	40
9	H6BSM88	203917 04/08/99	Uni-ZAP XR	19	916	1	916	95	95	2616	1	38	39	40

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
10	H6EEA48	203979 04/29/99	Uni-ZAP XR	20	1228	1	1228	196	196	2617	1	20	21	246
11	H6EEN71	203918 04/08/99	Uni-ZAP XR	21	1960	1	1083		1434	2618	1	4	5	27
12	H6EEO05	PTA-181 06/07/99	Uni-ZAP XR	22	1425	1	1397	190	190	2619	1	34	35	111
13	H6EEU40	203917 04/08/99	Uni-ZAP XR	23	951	1	951	175	175	2620	1	27	28	47
14	H7TDB54	203959 04/26/99	PCR II	24	229	1	229	86	86	2621	1	24	25	48
15	H7TMB95	203917 04/08/99	Other	25	508	1	508	275	275	2622	1			25
16	HAAAT06	PTA-794 09/27/99	pSport1	26	1099	1	1085	329	329	2623	1	21	22	104
17	HACAD42	203917 04/08/99	Uni-ZAP XR	27	990	463	990		683	2624	1	7	8	19
18	HACBJ11	203917 04/08/99	Uni-ZAP XR	28	3152	889	3152	1060	1060	2625	1	19	20	83
19	HACBS86	203917 04/08/99	Uni-ZAP XR	29	1402	1	1402	654	654	2626	1	35	36	104

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
20	HACBT91	203917 04/08/99	Uni-ZAP XR	30	841	1	841		329	2627	1	7	8	59
21	HACBZ73	203917 04/08/99	Uni-ZAP XR	31	966	1	966	105	105	2628	1	25	26	36
22	HACCK29	203917 04/08/99	Uni-ZAP XR	32	1005	1	1005	205	205	2629	1	25	26	29
23	HADAB60	203917 04/08/99	pSport1	33	464	1	464	202	202	2630	1	30	31	51
24	HADAM31	203917 04/08/99	pSport1	34	839	1	839	161	161	2631	1	13	14	27
25	HADCL19	203917 04/08/99	pSport1	35	1102	1	1102	140	140	2632	1	14	15	15
26	HADCZ65	203917 04/08/99	pSport1	36	1112	1	1112	240	240	2633	1			3
27	HADDC04	203917 04/08/99	pSport1	37	2531	1	2531	254	254	2634	1	28	29	32
28	HADDP23	203979 04/29/99	pSport1	38	954	1	954	238	238	2635	1	24	25	39
29	HADDP51	203979 04/29/99	pSport1	39	3342	1	3342	324	324	2636	1	31	32	126
30	HADDR24	203917 04/08/99	pSport1	40	620	1	620	230	230	2637	1	31	32	35

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
31	HADET62	203917 04/08/99	pSport1	41	830	1	830	154	154	2638	1	18	19	31
32	HADEY08	203917 04/08/99	pSport1	42	4054	1	4054	201	201	2639	1			15
33	HADEY22	203917 04/08/99	pSport1	43	452	1	452	169	169	2640	1	18	19	32
34	HADEY22	203917 04/08/99	pSport1	44	625	1	625	169	169	2641	1	18	19	32
35	HADFB84	203917 04/08/99	pSport1	45	1193	1	1193	94	94	2642	1	28	29	46
36	HADFD01	203917 04/08/99	pSport1	46	1594	1	1594	377	377	2643	1	19	20	66
37	HADFD10	203979 04/29/99	pSport1	47	1762	1	1762	212	212	2644	1	30	31	38
38	HADFK11	203917 04/08/99	pSport1	48	1042	1	1042	24	24	2645	1	19	20	57
39	HADFT44	203917 04/08/99	pSport1	49	855	15	852	147	147	2646	1	25	26	55
40	HADFW20	203917 04/08/99	pSport1	50	1120	1	1120	223	223	2647	1	20	21	27
41	HADFX10	203917 04/08/99	pSport1	51	1278	1	1278	187	187	2648	1	18	19	36

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
42	HADFY80	203917 04/08/99	pSport1	52	742	1	742	83	83	2649	1	23	24	34
43	HADGD93	203917 04/08/99	pSport1	53	1033	1	899	47	47	2650	1	25	26	45
44	HADMA77	203917 04/08/99	pBluescript	54	1913	763	1913		992	2651	1	14	15	23
45	HADXA10	203960 04/26/99	pSport1	55	1992	1149	1927	1327	1327	2652	1	48	49	123
46	HADXA10	203960 04/26/99	pSport1	56	1386	553	1331	731	731	2653	1	48	49	123
47	HAFBB15	203917 04/08/99	pBluescript SK-	57	1733	1	1733	186	186	2654	1	50	51	87
48	HAFBL14	203917 04/08/99	pBluescript SK-	58	2722	364	2722	542	542	2655	1	17	18	31
49	HAGAB62	203917 04/08/99	Uni-ZAP XR	59	1094	1	1094	82	82	2656	1	35	36	41
50	HAGAB83	203917 04/08/99	Uni-ZAP XR	60	1839	1	1839	35	35	2657	1	22	23	35
51	HAGAE84	203979 04/29/99	Uni-ZAP XR	61	1964	1	1964		205	2658	1	10	11	17
52	HAGAF75	203917 04/08/99	Uni-ZAP XR	62	1330	1	1330	106	106	2659	1	26	27	58

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
53	HAGAK40	203917 04/08/99	Uni-ZAP XR	63	1504	1	1504		187	2660	1	15	16	19
54	HAGAU43	203918 04/08/99	Uni-ZAP XR	64	1828	1	1828	285	285	2661	1	20	21	32
55	HAGAZ36	203917 04/08/99	Uni-ZAP XR	65	1280	1	1280	128	128	2662	1	15	16	65
56	HAGBC57	203917 04/08/99	Uni-ZAP XR	66	1528	1	1528	358	358	2663	1	15	16	18
57	HAGBL31	203917 04/08/99	Uni-ZAP XR	67	1458	1	1458	27	27	2664	1	27	28	30
58	HAGBO09	203979 04/29/99	Uni-ZAP XR	68	1538	1	1538	59	59	2665	1	28	29	32
59	HAGBO12	203917 04/08/99	Uni-ZAP XR	69	557	1	557	54	54	2666	1	18	19	32
60	HAGBO51	203917 04/08/99	Uni-ZAP XR	70	1568	1	1568	132	132	2667	1	29	30	37
61	HAGBS89	203918 04/08/99	Uni-ZAP XR	71	1228	1	1228	98	98	2668	1	24	25	36
62	HAGBV06	203917 04/08/99	Uni-ZAP XR	72	1715	1	1715	98	98	2669	1	21	22	25
63	HAGBV25	203917 04/08/99	Uni-ZAP XR	73	1896	456	1846	725	725	2670	1			17

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
64	HAGBV29	203917 04/08/99	Uni-ZAP XR	74	2075	8	2075	16	16	2671	1	21	22	65
65	HAGCC87	203917 04/08/99	Uni-ZAP XR	75	1592	479	1592	509	509	2672	1			9
66	HAGCH67	203917 04/08/99	Uni-ZAP XR	76	1324	1	1324	150	150	2673	1	30	31	41
67	HAGCI69	203917 04/08/99	Uni-ZAP XR	77	1214	1	1214		31	2674	1	17	18	66
68	HAGCT33	203917 04/08/99	Uni-ZAP XR	78	1338	1	1338	42	42	2675	1	26	27	39
69	HAGCZ70	203917 04/08/99	Uni-ZAP XR	79	1686	54	1686	91	91	2676	1	18	19	35
70	HAGDC73	203917 04/08/99	Uni-ZAP XR	80	1634	577	1634	744	744	2677	1	16	17	30
71	HAGDG84	203917 04/08/99	Uni-ZAP XR	81	2012	1	2012	297	297	2678	1	16	17	39
72	HAGDH85	203917 04/08/99	Uni-ZAP XR	82	1322	1	1322	45	45	2679	1	31	32	33
73	HAGDI69	203917 04/08/99	Uni-ZAP XR	83	941	1	941	110	110	2680	1			3
74	HAGDJ53	203917 04/08/99	Uni-ZAP XR	84	1874	2	1874	130	130	2681	1	18	19	33

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
75	HAGDJ56	203917 04/08/99	Uni-ZAP XR	85	643	1	643	81	81	2682	1	24	25	34
76	HAGDL51	203917 04/08/99	Uni-ZAP XR	86	1669	1	1669	218	218	2683	1	21	22	33
77	HAGDO70	203917 04/08/99	Uni-ZAP XR	87	948	144	945	338	338	2684	1	27	28	180
78	HAGDT30	203917 04/08/99	Uni-ZAP XR	88	2007	1	2007	198	198	2685	1	22	23	35
79	HAGDW68	203917 04/08/99	Uni-ZAP XR	89	1687	1	1687	90	90	2686	1	18	19	39
80	HAGDX84	203917 04/08/99	Uni-ZAP XR	90	952	1	952	223	223	2687	1			5
81	HAGEK37	203917 04/08/99	Uni-ZAP XR	91	1410	744	1388	932	932	2688	1	23	24	39
82	HAGEK86	203917 04/08/99	Uni-ZAP XR	92	1759	1	1759	165	165	2689	1	24	25	31
83	HAGEP30	203917 04/08/99	Uni-ZAP XR	93	810	1	810	120	120	2690	1	18	19	35
84	HAGEQ58	203917 04/08/99	Uni-ZAP XR	94	1675	1	1675	162	162	2691	1			17
85	HAGEQ67	203917 04/08/99	Uni-ZAP XR	95	1205	1	1205	226	226	2692	1	16	17	37

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
86	HAGEU26	203917 04/08/99	Uni-ZAP XR	96	484	1	484	175	175	2693	1	20	21	53
87	HAGEW83	203917 04/08/99	Uni-ZAP XR	97	1069	1	1069	18	18	2694	1	24	25	31
88	HAGEX49	203917 04/08/99	Uni-ZAP XR	98	1475	373	1434	606	606	2695	1			16
89	HAGEX49	203917 04/08/99	Uni-ZAP XR	99	1475	373	1434	606	606	2696	1			16
90	HAGFD75	203979 04/29/99	Uni-ZAP XR	100	1067	1	1067	13	13	2697	1	16	17	61
91	HAGFF43	203917 04/08/99	Uni-ZAP XR	101	1844	1	1844	266	266	2698	1			5
92	HAGFJ67	PTA-181 06/07/99	Uni-ZAP XR	102	2122	1	2122	208	208	2699	1	26	27	92
93	HAGFM58	203917 04/08/99	Uni-ZAP XR	103	931	1	931	243	243	2700	1			11
94	HAGFT48	203979 04/29/99	Uni-ZAP XR	104	1683	633	1683		830	2701	1	22	23	120
95	HAGFU31	203917 04/08/99	Uni-ZAP XR	105	1270	1	1270	105	105	2702	1	21	22	44

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
96	HAGFW13	203917 04/08/99	Uni-ZAP XR	106	911	1	911	183	183	2703	1	20	21	34
97	HAGHE85	203917 04/08/99	Uni-ZAP XR	107	1697	1	1697		342	2704	1			5
98	HAGHR18	203917 04/08/99	Uni-ZAP XR	108	1142	1	1142	28	28	2705	1	17	18	32
99	HAGIB90	203959 04/26/99	Uni-ZAP XR	109	976	1	976	59	59	2706	1	22	23	23
100	HAHEM51	203917 04/08/99	Uni-ZAP XR	110	658	1	658	185	185	2707	1	31	32	39
101	HAHSA76	203979 04/29/99	pBluescript	111	1588	425	1588	595	595	2708	1			1
102	HAHSD51	203979 04/29/99	pBluescript	112	593	1	593	85	85	2709	1	22	23	49
103	HAIBR76	PTA-791 09/27/99	Uni-ZAP XR	113	2355	1	1903	137	137	2710	1	18	19	72
104	HAIBT20	203917 04/08/99	Uni-ZAP XR	114	1437	1	1437	286	286	2711	1	25	26	35
105	HAIBV91	203979 04/29/99	Uni-ZAP XR	115	2050	1	2050	90	90	2712	1	17	18	34

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
106	HAICE62	203917 04/08/99	Uni-ZAP XR	116	1968	38	1361	363	363	2713	1			5
107	HAICL90	203917 04/08/99	Uni-ZAP XR	117	754	1	754	140	140	2714	1	23	24	39
108	HAICV44	203917 04/08/99	Uni-ZAP XR	118	1324	1	1324	232	232	2715	1	23	24	26
109	HAIDP45	203979 04/29/99	Uni-ZAP XR	119	1182	1	1182	255	255	2716	1	15	16	25
110	HAJAB88	203918 04/08/99	pCMVSPORT 3.0	120	911	213	891	126	126	2717	1	14	15	92
111	HAJAZ56	203917 04/08/99	pCMVSPORT 3.0	121	1099	267	1099	300	300	2718	1	19	20	35
112	HAMFC67	203917 04/08/99	pCMVSPORT 3.0	122	1379	1	1379	282	282	2719	1	29	30	72
113	HAMFQ38	203917 04/08/99	pCMVSPORT 3.0	123	581	1	581	90	90	2720	1	25	26	37
114	HAMGG01	203917 04/08/99	pCMVSPORT 3.0	124	1284	323	1259	644	644	2721	1			17
115	HANGB24	203917 04/08/99	pSport1	125	431	1	431	199	199	2722	1	21	22	66
116	HANKC93	203979 04/29/99	pSport1	126	876	1	876	198	198	2723	1	17	18	39

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
117	HAPAD35	203918 04/08/99	Uni-ZAP XR	127	2157	1	2157	50	50	2724	1	17	18	34
118	HAPBR13	203917 04/08/99	Uni-ZAP XR	128	1585	1	1585	125	125	2725	1	22	23	52
119	HAPBU09	203917 04/08/99	Uni-ZAP XR	129	792	1	792	247	247	2726	1	19	20	45
120	HAPBU86	203917 04/08/99	Uni-ZAP XR	130	1351	255	1351	403	403	2727	1	23	24	35
121	HAPBU86	203917 04/08/99	Uni-ZAP XR	131	1371	255	1348	403	403	2728	1	23	24	35
122	HAPNJ33	203979 04/29/99	Uni-ZAP XR	132	3397	1593	3376	1872	1872	2729	1	36	37	70
123	HAPNL62	203917 04/08/99	Uni-ZAP XR	133	2812	433	2239	701	701	2730	1	41	42	102
124	HAPNO50	203917 04/08/99	Uni-ZAP XR	134	1145	1	1134	205	205	2731	1	20	21	36
125	HAPNY10	203917 04/08/99	Uni-ZAP XR	135	1509	1	1509		33	2732	1	40	41	44
126	HAPPW83	203979 04/29/99	Uni-ZAP XR	136	1365	35	1365	66	66	2733	1			10
127	HAPQJ73	203917 04/08/99	Uni-ZAP XR	137	1857	1	1857		286	2734	1			16

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
128	HAPQK26	203917 04/08/99	Uni-ZAP XR	138	1810	1	1810		300	2735	1			12
129	HAPQU71	203917 04/08/99	Uni-ZAP XR	139	1879	1264	1807	1324	1324	2736	1	20	21	53
130	HAPQU71	203917 04/08/99	Uni-ZAP XR	140	1879	1264	1807	1324	1324	2737	1	20	21	53
131	HAPQW18	203917 04/08/99	Uni-ZAP XR	141	556	1	556	20	20	2738	1	29	30	37
132	HAPQX44	203918 04/08/99	Uni-ZAP XR	142	1632	285	1623	515	515	2739	1			17
133	HAPRK55	203917 04/08/99	Uni-ZAP XR	143	1380	1	1380	172	172	2740	1	28	29	38
134	HAPSH37	203979 04/29/99	Uni-ZAP XR	144	1380	1	1380	251	251	2741	1	21	22	56
135	HAQBG57	203917 04/08/99	Uni-ZAP XR	145	1048	1	1031		170	2742	1	15	16	56
136	HAQBY85	203917 04/08/99	Uni-ZAP XR	146	1882	1	1882	192	192	2743	1	22	23	33
137	HAQBZ15	203959 04/26/99	Uni-ZAP XR	147	2254	521	2121		671	2744	1	21	22	51
138	HAQCE18	203917 04/08/99	Uni-ZAP XR	148	284	1	284	79	79	2745	1			10

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
139	HAQCF94	203917 04/08/99	Uni-ZAP XR	149	1615	7	1495	89	89	2746	1			25
140	HARAE26	203917 04/08/99	pBluescript SK-	150	1245	1	1245	225	225	2747	1	30	31	97
141	HARAT69	203917 04/08/99	pBluescript SK-	151	1961	189	1961	422	422	2748	1	21	22	334
142	HARAZ81	203918 04/08/99	pBluescript SK-	152	936	242	936	435	435	2749	1	18	19	33
143	HASAU26	203979 04/29/99	Uni-ZAP XR	153	3853	1557	2090	1767	1767	2750	1	25	26	50
144	HASAX57	203917 04/08/99	Uni-ZAP XR	154	1357	1	1357	136	136	2751	1	30	31	38
145	HASAY07	203917 04/08/99	Uni-ZAP XR	155	810	1	810		699	2752	1			5
146	HATAE01	203917 04/08/99	Uni-ZAP XR	156	811	1	811	76	76	2753	1	27	28	30
147	HATAG52	203917 04/08/99	Uni-ZAP XR	157	1010	1	1010	154	154	2754	1	22	23	29
148	HATAL05	203979 04/29/99	Uni-ZAP XR	158	1199	1	1199	134	134	2755	1			45
149	HATBA90	203917 04/08/99	Uni-ZAP XR	159	434	1	434	97	97	2756	1	.23	24	38

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
150	HATBM71	203917 04/08/99	Uni-ZAP XR	160	716	1	716	196	196	2757	1	36	37	38
151	HATCF80	203918 04/08/99	Uni-ZAP XR	161	2503	506	2485	620	620	2758	1	19	20	52
152	HATCI67	203979 04/29/99	Uni-ZAP XR	162	1108	1	1108	158	158	2759	1	18	19	31
153	HATCJ27	203979 04/29/99	Uni-ZAP XR	163	930	1	930		237	2760	1			15
154	HATCS79	203979 04/29/99	Uni-ZAP XR	164	794	1	794	259	259	2761	1	16	17	40
155	HATCX03	PTA-794 09/27/99	Uni-ZAP XR	165	1145	1	1145		196	2762	1	10	11	45
156	HATDE03	203917 04/08/99	Uni-ZAP XR	166	1927	282	1276	428	428	2763	1	18	19	46
157	HATDF41	203917 04/08/99	Uni-ZAP XR	167	1316	729	1292	1066	1066	2764	1	15	16	31
158	HATDH23	203917 04/08/99	Uni-ZAP XR	168	1340	1	1340		98	2765	1			2
159	HATDH55	203979 04/29/99	Uni-ZAP XR	169	2097	1	2097	50	50	2766	1			33

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
160	HATDO84	203917 04/08/99	Uni-ZAP XR	170	958	1	958	75	75	2767	1	22	23	32
161	HATDU01	203979 04/29/99	Uni-ZAP XR	171	1302	1	1302	23	23	2768	1	16	17	20
162	HATDW05	203917 04/08/99	Uni-ZAP XR	172	558	1	558	232	232	2769	1	13	14	46
163	HATEF13	203917 04/08/99	Uni-ZAP XR	173	1679	1	1679	139	139	2770	1	24	25	37
164	HATEF64	203917 04/08/99	Uni-ZAP XR	174	1335	1	1335	154	154	2771	1			28
165	HATEH40	203917 04/08/99	Uni-ZAP XR	175	563	1	563		230	2772	1	20	21	32
166	HATEI22	PTA-181 06/07/99	Uni-ZAP XR	176	2418	2100	2394	2203	2203	2773	1	33	34	41
167	HAUCC84	203979 04/29/99	Uni-ZAP XR	177	1308	25	1279		265	2774	1	31	32	82
168	HAWAS41	PTA-791 09/27/99	pBluescript SK-	178	1009	1	1009	140	140	2775	1	25	26	39
169	HAWBA65	203917 04/08/99	pBluescript SK-	179	561	1	561	228	228	2776	1	16	17	45

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
170	HBAGH64	203917 04/08/99	pSport1	180	1718	1	1718		645	2777	1			1
171	HBAGV01	PTA-181 06/07/99	pSport1	181	422	1	422	17	17	2778	1	22	23	30
172	HBAMC50	PTA-791 09/27/99	pSport1	182	2234	1	2234	101	101	2779	1	23	24	47
173	HBAMC57	203917 04/08/99	pSport1	183	307	1	307		168	2780	1	8	9	10
174	HBBA42	203917 04/08/99	pCMVSPORT 1	184	1758	585	1758		646	2781	1	14	15	41
175	HBBA08	203917 04/08/99	pCMVSPORT 1	185	1056	1	1056		805	2782	1			11
176	HBBAE83	203917 04/08/99	pCMVSPORT 1	186	470	1	470	106	106	2783	1	17	18	63
177	HBBA11	203917 04/08/99	pCMVSPORT 1	187	932	1	932	199	199	2784	1	11	12	59
178	HBCAK10	203917 04/08/99	Uni-ZAP XR	188	1953	1	1953	96	96	2785	1			10
179	HBCAK80	203917 04/08/99	Uni-ZAP XR	189	1008	1	1008	124	124	2786	1	17	18	39

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
180	HBCAQ48	203917 04/08/99	Uni-ZAP XR	190	421	1	421	320	320	2787	1	30	31	34
181	HBCAY17	203917 04/08/99	Uni-ZAP XR	191	1086	1	1086	281	281	2788	1	22	23	31
182	HBCGE46	203917 04/08/99	pSport1	192	1038	1	1038	225	225	2789	1	21	22	46
183	HGBA14	203917 04/08/99	Uni-ZAP XR	193	765	267	718	298	298	2790	1	24	25	36
184	HGBE75	PTA-794 09/27/99	Uni-ZAP XR	194	668	1	646	161	161	2791	1	18	19	55
185	HGBBP22	203917 04/08/99	Uni-ZAP XR	195	893	68	893	109	109	2792	1			7
186	HGBFQ34	203917 04/08/99	Uni-ZAP XR	196	519	1	519	86	86	2793	1	21	22	37
187	HBGML95	203917 04/08/99	Uni-ZAP XR	197	453	1	453		90	2794	1	27	28	113
188	HBGMT60	203917 04/08/99	Uni-ZAP XR	198	415	1	414	163	163	2795	1	24	25	38
189	HBHAA53	203917 04/08/99	Uni-ZAP XR	199	674	1	674	53	53	2796	1	28	29	162

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
190	HBIAU43	203959 04/26/99	Uni-ZAP XR	200	1246	1	1246	202	202	2797	1	15	16	18
191	HBIAW58	203917 04/08/99	Uni-ZAP XR	201	1510	1	1510	17	17	2798	1	18	19	30
192	HBIBB20	PTA-794 09/27/99	Uni-ZAP XR	202	1259	1	1259		153	2799	1	30	31	71
193	HBIBF26	203979 04/29/99	Uni-ZAP XR	203	2101	591	2089	655	655	2800	1	19	20	183
194	HBIBM33	203979 04/29/99	Uni-ZAP XR	204	725	1	725		2	2801	1	8	9	24
195	HBIBN67	203917 04/08/99	Uni-ZAP XR	205	926	1	926	71	71	2802	1	22	23	38
196	HBIBQ69	203917 04/08/99	Uni-ZAP XR	206	1248	1	1248		112	2803	1	28	29	35
197	HBIBR38	203917 04/08/99	Uni-ZAP XR	207	824	1	824		27	2804	1	13	14	15
198	HBIBR61	203917 04/08/99	Uni-ZAP XR	208	2206	1	2206		235	2805	1			2
199	HBIBS33	203917 04/08/99	Uni-ZAP XR	209	1421	1	1421	234	234	2806	1			23

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
200	HBIBT13	203917 04/08/99	Uni-ZAP XR	210	630	1	630	65	65	2807	1	21	22	33
201	HBIBZ20	203917 04/08/99	Uni-ZAP XR	211	1408	1	1408		146	2808	1			18
202	HBICB80	203917 04/08/99	Uni-ZAP XR	212	785	1	785	190	190	2809	1	18	19	20
203	HBJAC40	203979 04/29/99	Uni-ZAP XR	213	1767	184	1729		329	2810	1			13
204	HBJAV56	203917 04/08/99	Uni-ZAP XR	214	781	1	781	274	274	2811	1			4
205	HBJAY14	203917 04/08/99	Uni-ZAP XR	215	2115	1	2115	90	90	2812	1	25	26	39
206	HBJBQ69	203917 04/08/99	Uni-ZAP XR	216	1148	1	1148	173	173	2813	1			8
207	HBJBR40	203917 04/08/99	Uni-ZAP XR	217	1131	1	1131	50	50	2814	1			40
208	HBJCH46	203917 04/08/99	Uni-ZAP XR	218	1117	1	1117	146	146	2815	1	22	23	62
209	HBJCR17	203979 04/29/99	Uni-ZAP XR	219	963	1	935	55	55	2816	1	18	19	36
210	HBJCS26	203979 04/29/99	Uni-ZAP XR	220	2884	1	1997	369	369	2817	1	15	16	33

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
211	HBJCW24	203917 04/08/99	Uni-ZAP XR	221	1014	1	1014	323	323	2818	1	23	24	26
212	HBJDC57	203917 04/08/99	Uni-ZAP XR	222	743	1	743	173	173	2819	1			9
213	HBJDR18	203917 04/08/99	Uni-ZAP XR	223	1118	1	1118		265	2820	1	16	17	17
214	HBJDR83	203917 04/08/99	Uni-ZAP XR	224	1485	1	1485		141	2821	1	23	24	25
215	HBJEE51	203917 04/08/99	Uni-ZAP XR	225	1249	1	1249	56	56	2822	1			18
216	HBJEL21	PTA-181 06/07/99	Uni-ZAP XR	226	2082	1	2082	48	48	2823	1	21	22	45
217	HBJFH84	203959 04/26/99	Uni-ZAP XR	227	2294	1580	2294	1663	1663	2824	1			7
218	HBJFJ14	203979 04/29/99	Uni-ZAP XR	228	1255	1	1254		264	2825	1	10	11	14
219	HBJFJ26	PTA-792 09/27/99	Uni-ZAP XR	229	895	1	895	180	180	2826	1	20	21	59
219	HBJFJ26	PTA-792 09/27/99	Uni-ZAP XR	2598	2178	672	1552	851	851	5195	1	20	21	59

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
220	HBJFJ83	203917 04/08/99	Uni-ZAP XR	230	1208	1	1208	246	246	2827	1	30	31	34
221	HBJFJ83	203917 04/08/99	Uni-ZAP XR	231	1165	1	1165	246	246	2828	1	30	31	34
222	HBJFP47	203917 04/08/99	Uni-ZAP XR	232	1021	335	1021	423	423	2829	1	27	28	38
223	HBJFR77	203917 04/08/99	Uni-ZAP XR	233	1661	190	1661	354	354	2830	1	27	28	31
224	HBJFU30	203917 04/08/99	Uni-ZAP XR	234	477	1	477		14	2831	1	22	23	77
225	HBJFX41	203917 04/08/99	Uni-ZAP XR	235	779	1	779	181	181	2832	1			13
226	HBJHO83	203917 04/08/99	Uni-ZAP XR	236	972	1	972	189	189	2833	1	34	35	67
227	HBJHS92	203917 04/08/99	Uni-ZAP XR	237	1885	64	1885	121	121	2834	1			18
228	HBJHT01	203917 04/08/99	Uni-ZAP XR	238	1251	1	1251	200	200	2835	1	20	21	21
229	HBJHT01	203917 04/08/99	Uni-ZAP XR	239	1252	1	1252	193	193	2836	1	21	22	47
230	HBJHW06	203917 04/08/99	Uni-ZAP XR	240	1256	224	1256	443	443	2837	1	14	15	35

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
231	HBJR14	203917 04/08/99	Uni-ZAP XR	241	2858	1522	2809	1800	1800	2838	1	12	13	19
232	HBJA26	203917 04/08/99	Uni-ZAP XR	242	1363	1	1257	236	236	2839	1	15	16	29
233	HBJX02	203917 04/08/99	Uni-ZAP XR	243	724	1	724	228	228	2840	1	20	21	36
234	HBJLH78	203917 04/08/99	Uni-ZAP XR	244	1099	128	1099	284	284	2841	1			18
235	HBJND04	203917 04/08/99	Uni-ZAP XR	245	1703	98	1701		309	2842	1	18	19	348
236	HBJND57	203917 04/08/99	Uni-ZAP XR	246	1120	1	1120	20	20	2843	1	28	29	34
237	HBKDF66	203917 04/08/99	pSport1	247	1832	1	1832		222	2844	1	17	18	29
238	HBKEA94	203917 04/08/99	pSport1	248	1247	1	1247	56	56	2845	1	30	31	58
239	HBKEE60	203917 04/08/99	pSport1	249	621	1	621		47	2846	1	14	15	82
240	HBKEI41	203917 04/08/99	pSport1	250	866	1	866		441	2847	1	21	22	123
241	HBMBD51	203979 04/29/99	pBluescript	251	3057	242	2779	413	413	2848	1	26	27	72

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
242	HBMBD73	203917 04/08/99	pBluescript	252	5279	4063	5091		4310	2849	1			13
243	HBMBE33	203917 04/08/99	pBluescript	253	931	1	931	45	45	2850	1			37
244	HBMBM17	203917 04/08/99	pBluescript	254	1162	1	1162	31	31	2851	1	22	23	37
245	HBMCL59	203917 04/08/99	pBluescript	255	807	1	807	69	69	2852	1	16	17	31
246	HBMCM96	203917 04/08/99	pBluescript	256	2284	2	2284	100	100	2853	1	15	16	20
247	HBMCQ74	PTA-181 06/07/99	pBluescript	257	4043	1563	3480		1815	2854	1			20
248	HBMCQ74	PTA-181 06/07/99	pBluescript	258	4044	1563	3480		1815	2855	1			20
249	HBMCT40	203917 04/08/99	pBluescript	259	711	1	711	184	184	2856	1	19	20	82
250	HBMDM08	203979 04/29/99	pBluescript	260	1113	629	692	505	505	2857	1	28	29	156
251	HBMSN62	203917 04/08/99	Uni-ZAP XR	261	982	1	973	193	193	2858	1	22	23	31

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
252	HBM SO30	203959 04/26/99	Uni-ZAP XR	262	778	1	778	172	172	2859	1	16	17	17
253	HBM TM50	203917 04/08/99	Uni-ZAP XR	263	1234	1	1234	44	44	2860	1			4
254	HBM UD59	203917 04/08/99	Uni-ZAP XR	264	876	1	876	270	270	2861	1	21	22	126
255	HBM UI10	203917 04/08/99	Uni-ZAP XR	265	822	1	822	249	249	2862	1	28	29	39
256	HBM UJ48	203917 04/08/99	Uni-ZAP XR	266	513	1	513	180	180	2863	1	17	18	24
257	HBM UR39	203917 04/08/99	Uni-ZAP XR	267	888	1	888	135	135	2864	1	18	19	23
258	HBM VF65	203917 04/08/99	Uni-ZAP XR	268	1064	175	1063	179	179	2865	1	16	17	38
259	HBM VF65	203917 04/08/99	Uni-ZAP XR	269	1282	378	1265	382	382	2866	1	16	17	38
260	HBM WC39	203917 04/08/99	Uni-ZAP XR	270	1154	1	1154		112	2867	1	16	17	18
261	HBM WJ92	203917 04/08/99	Uni-ZAP XR	271	1810	1	1810	82	82	2868	1	17	18	40

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
262	HBMWS52	PTA-791 09/27/99	Uni-ZAP XR	272	1345	1	1345	19	19	2869	1	16	17	35
263	HBMXE34	203917 04/08/99	Uni-ZAP XR	273	1831	906	1831	301	301	2870	1			11
264	HBMXG01	203917 04/08/99	Uni-ZAP XR	274	1139	1	1139		261	2871	1	13	14	24
265	HBMXG76	203917 04/08/99	Uni-ZAP XR	275	618	1	618	71	71	2872	1	20	21	26
266	HBMXM05	203979 04/29/99	Uni-ZAP XR	276	1121	1	1119	20	20	2873	1	30	31	37
267	HBMXW83	203917 04/08/99	Uni-ZAP XR	277	1233	1	1233	16	16	2874	1	33	34	39
268	HBNAE74	203917 04/08/99	Uni-ZAP XR	278	426	1	426		203	2875	1			1
269	HBNA16	203979 04/29/99	Uni-ZAP XR	279	3244	2578	3231	2711	2711	2876	1	35	36	148
270	HBNAZ35	203917 04/08/99	Uni-ZAP XR	280	894	295	894	519	519	2877	1			7
271	HBODK40	203979 04/29/99	pSport1	281	1778	1	1599	338	338	2878	1			10

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
272	HBODV76	PTA-181 06/07/99	pSport1	282	2498	1	2498	303	303	2879	1			8
273	HBPAD89	203917 04/08/99	Uni-ZAP XR	283	195	1	195	74	74	2880	1	14	15	15
274	HBPAPF39	203979 04/29/99	Uni-ZAP XR	284	1262	1	1262	119	119	2881	1			18
275	HBQAC45	203917 04/08/99	Lambda ZAP II	285	1371	1	1371		292	2882	1			7
276	HBQAC72	203917 04/08/99	Lambda ZAP II	286	2345	1	2345	741	741	2883	1	29	30	77
277	HBQAE37	203917 04/08/99	Lambda ZAP II	287	1015	1	1015	208	208	2884	1			37
278	HBSAJ63	203917 04/08/99	Uni-ZAP XR	288	1708	1079	1587		1256	2885	1	20	21	62
279	HBSAJ63	203917 04/08/99	Uni-ZAP XR	289	540	1	540		183	2886	1	20	21	62
280	HBSDD24	203917 04/08/99	Uni-ZAP XR	290	1494	710	1494	833	833	2887	1	21	22	42
281	HBWBD25	203917 04/08/99	ZAP Express	291	1504	1	1504	182	182	2888	1	22	23	48

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
282	HBXAS93	203917 04/08/99	ZAP Express	292	1759	1	1759	215	215	2889	1			11
283	HBXAT27	203959 04/26/99	ZAP Express	293	2406	958	2385		1097	2890	1	17	18	40
284	HBXAW57	203917 04/08/99	ZAP Express	294	1377	1	1377	152	152	2891	1	30	31	36
285	HBXBI29	203979 04/29/99	ZAP Express	295	2043	1	2043	87	87	2892	1	27	28	28
286	HBXBM24	203917 04/08/99	ZAP Express	296	713	1	713		85	2893	1	30	31	46
287	HBXBM78	203917 04/08/99	ZAP Express	297	2791	2044	2791	2163	2163	2894	1	21	22	119
288	HBXCD59	PTA-181 06/07/99	ZAP Express	298	2017	1	2017	165	165	2895	1	22	23	65
289	HBXCE43	203917 04/08/99	ZAP Express	299	1273	1	1273	349	349	2896	1			4
290	HBXCG08	203917 04/08/99	ZAP Express	300	1879	1	1879	260	260	2897	1	13	14	17
291	HBXCM52	203917 04/08/99	ZAP Express	301	2520	355	2513	366	366	2898	1	14	15	37

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
292	HBXCQ03	203917 04/08/99	ZAP Express	302	968	1	968	231	231	2899	1	30	31	55
293	HBXCR15	203917 04/08/99	ZAP Express	303	1235	1	1235	158	158	2900	1	22	23	33
294	HBXDL52	PTA-791 09/27/99	ZAP Express	304	2311	885	2307	1040	1040	2901	1			8
295	HBXDL52	PTA-791 09/27/99	ZAP Express	305	2311	885	2307	1040	1040	2902	1			8
296	HBXDN08	203917 04/08/99	ZAP Express	306	1057	1	1057	67	67	2903	1	22	23	24
297	HBXDN65	203918 04/08/99	ZAP Express	307	1948	1	1948	187	187	2904	1	25	26	36
298	HBXFA04	203959 04/26/99	ZAP Express	308	622	1	617	411	411	2905	1	20	21	41
299	HBXFE64	203917 04/08/99	ZAP Express	309	1647	1	1647		15	2906	1	17	18	33
300	HBXFI33	203917 04/08/99	ZAP Express	310	598	1	598	124	124	2907	1	21	22	123
301	HBXFP72	203917 04/08/99	ZAP Express	311	1467	1	1467	122	122	2908	1	26	27	37

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
302	HBXFS31	203917 04/08/99	ZAP Express	312	1551	1	1551	20	20	2909	1			16
303	HBXFW01	203979 04/29/99	ZAP Express	313	1252	1	1252	125	125	2910	1	1	2	182
304	HBXGE12	203917 04/08/99	ZAP Express	314	2516	1	2516		52	2911	1	32	33	120
304	HBXGE12	203917 04/08/99	ZAP Express	2599	2469	1	2469		31	5196	1	32	33	120
305	HBXGL91	PTA-1838 05/09/00	ZAP Express	315	2483	1	2483	80	80	2912	1	34	35	36
306	HBXGM24	203917 04/08/99	ZAP Express	316	1663	1	1663	268	268	2913	1			15
307	HBZAI75	203917 04/08/99	pSport1	317	1531	1	1531		260	2914	1	21	22	48
308	HCABP33	PTA-181 06/07/99	Uni-ZAP XR	318	223	1	223	9	9	2915	1	29	30	37
309	HCABW10	203918 04/08/99	Uni-ZAP XR	319	2015	1	2015	76	76	2916	1	24	25	40
310	HCACZ65	203979 04/29/99	Uni-ZAP XR	320	1964	1	1964	30	30	2917	1	30	31	36

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
311	HCBAB34	203979 04/29/99	Uni-ZAP XR	321	1650	1	1650	93	93	2918	1	25	26	39
312	HCDAA24	203917 04/08/99	Uni-ZAP XR	322	924	288	767	342	342	2919	1	25	26	182
313	HCDAA24	203917 04/08/99	Uni-ZAP XR	323	1015	373	853	427	427	2920	1	25	26	142
314	HCDAF17	203917 04/08/99	Uni-ZAP XR	324	803	1	803	12	12	2921	1	17	18	35
315	HCDAH02	203917 04/08/99	Uni-ZAP XR	325	665	267	665	495	495	2922	1	18	19	57
316	HCDAP33	203917 04/08/99	Uni-ZAP XR	326	1454	1	1454	126	126	2923	1	26	27	27
317	HCDAR40	203917 04/08/99	Uni-ZAP XR	327	853	1	853		102	2924	1	28	29	40
318	HCDAS02	PTA-794 09/27/99	Uni-ZAP XR	328	1117	1	1117	136	136	2925	1	18	19	244
319	HCDBE76	203917 04/08/99	Uni-ZAP XR	329	685	1	685		260	2926	1	15	16	48
320	HCDBO32	203917 04/08/99	Uni-ZAP XR	330	2630	1480	2630	1669	1669	2927	1	25	26	71

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
321	HCDBW67	203917 04/08/99	Uni-ZAP XR	331	677	409	677		498	2928	1	10	11	44
322	HCDBZ31	203917 04/08/99	Uni-ZAP XR	332	858	21	858		565	2929	1	7	8	14
323	HCDCB03	203917 04/08/99	Uni-ZAP XR	333	1538	1	1538	32	32	2930	1	35	36	139
324	HCDCCE51	203917 04/08/99	Uni-ZAP XR	334	1085	1	1085	46	46	2931	1			2
325	HCDCI42	203979 04/29/99	Uni-ZAP XR	335	1046	1	1046	216	216	2932	1			9
326	HCDDDB15	203917 04/08/99	Uni-ZAP XR	336	1422	514	1202	668	668	2933	1			12
327	HCDDX81	203917 04/08/99	Uni-ZAP XR	337	419	1	419	274	274	2934	1	15	16	48
328	HCDDY28	PTA-793 09/27/99	Uni-ZAP XR	338	1691	1	1691	75	75	2935	1	28	29	31
329	HCDEB19	203917 04/08/99	Uni-ZAP XR	339	1744	1	1744		266	2936	1	31	32	48
330	HCDEN46	203917 04/08/99	Uni-ZAP XR	340	957	1	957	83	83	2937	1	33	34	59

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
331	HCDSE69	203917 04/08/99	Uni-ZAP XR	341	1032	1	1032		271	2938	1			1
332	HCE1D45	203917 04/08/99	Uni-ZAP XR	342	1390	1	1390	101	101	2939	1	28	29	44
333	HCE1N56	203917 04/08/99	Uni-ZAP XR	343	1590	1	1587	106	106	2940	1	37	38	38
334	HCE1T53	203959 04/26/99	Uni-ZAP XR	344	1461	1	1461	23	23	2941	1	21	22	40
335	HCE1Y27	203917 04/08/99	Uni-ZAP XR	345	1651	1	1651	374	374	2942	1	10	11	133
336	HCE1Y34	203917 04/08/99	Uni-ZAP XR	346	1720	1	1720		757	2943	1			8
337	HCE2B57	203917 04/08/99	Uni-ZAP XR	347	1247	1	1247		279	2944	1			9
338	HCE2E47	PTA-792 09/27/99	Uni-ZAP XR	348	1830	1	1830		102	2945	1	21	22	29
339	HCE2J23	203917 04/08/99	Uni-ZAP XR	349	977	1	977	56	56	2946	1	32	33	90
340	HCE2P90	203917 04/08/99	Uni-ZAP XR	350	1893	1	1893		142	2947	1	16	17	42

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
341	HCE3A54	203917 04/08/99	Uni-ZAP XR	351	847	1	847	51	51	2948	1	18	19	42
342	HCE3C46	203917 04/08/99	Uni-ZAP XR	352	1230	1	1230		290	2949	1			6
343	HCE3D58	PTA-791 09/27/99	Uni-ZAP XR	353	2575	501	2575	682	682	2950	1	18	19	66
344	HCE3D89	203917 04/08/99	Uni-ZAP XR	354	1100	17	1100	73	73	2951	1	33	34	87
345	HCE3J43	203917 04/08/99	Uni-ZAP XR	355	2129	836	2087	1075	1075	2952	1			22
346	HCE3L04	203918 04/08/99	Uni-ZAP XR	356	709	1	709	221	221	2953	1	16	17	46
347	HCE3N23	203917 04/08/99	Uni-ZAP XR	357	3145	595	3114	789	789	2954	1	14	15	51
348	HCE3R01	203917 04/08/99	Uni-ZAP XR	358	2746	1245	2736	1386	1386	2955	1	32	33	66
349	HCE3R01	203917 04/08/99	Uni-ZAP XR	359	2736	1245	2736	1386	1386	2956	1	32	33	66
350	HCE3R01	203917 04/08/99	Uni-ZAP XR	360	2736	1245	2736	1386	1386	2957	1	32	33	66

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
351	HCE3R46	203979 04/29/99	Uni-ZAP XR	361	2046	58	2025	376	376	2958	1			22
352	HCE4H32	203979 04/29/99	Uni-ZAP XR	362	2636	1344	2605	1403	1403	2959	1	46	47	60
353	HCE4H32	203979 04/29/99	Uni-ZAP XR	363	2047	755	2016	814	814	2960	1	46	47	60
354	HCE4T64	203917 04/08/99	Uni-ZAP XR	364	840	1	840		91	2961	1	33	34	76
355	HCE4W88	203917 04/08/99	Uni-ZAP XR	365	4151	23	1597		286	2962	1	16	17	32
356	HCE5B62	203917 04/08/99	Uni-ZAP XR	366	1714	1	1714	204	204	2963	1	23	24	29
357	HCE5H86	203979 04/29/99	Uni-ZAP XR	367	2329	1	2328	288	288	2964	1	28	29	64
358	HCE5J64	203917 04/08/99	Uni-ZAP XR	368	2207	1	2207	114	114	2965	1	31	32	39
359	HCEBF54	203979 04/29/99	Uni-ZAP XR	369	1069	1	1069	197	197	2966	1	30	31	129
360	HCECO77	203917 04/08/99	Uni-ZAP XR	370	1436	1	1436	124	124	2967	1	28	29	66
361	HCEDH42	203917 04/08/99	Uni-ZAP XR	371	1419	1	1419	71	71	2968	1	20	21	55

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
362	HCEDJ05	203917 04/08/99	Uni-ZAP XR	372	2396	1	2396	67	67	2969	1	23	24	46
363	HCEDJ26	203917 04/08/99	Uni-ZAP XR	373	1984	34	1984		981	2970	1			1
364	HCEDN07	203979 04/29/99	Uni-ZAP XR	374	1425	1	1425	126	126	2971	1	16	17	40
365	HCEDO17	203917 04/08/99	Uni-ZAP XR	375	1953	255	1953		608	2972	1	11	12	34
366	HCEEG48	PTA-794 09/27/99	Uni-ZAP XR	376	996	1	996		242	2973	1			21
367	HCEEM33	203917 04/08/99	Uni-ZAP XR	377	1165	1	1165	244	244	2974	1	26	27	35
368	HCEEP16	203917 04/08/99	Uni-ZAP XR	378	1381	1	1381	276	276	2975	1			1
369	HCEER60	203917 04/08/99	Uni-ZAP XR	379	775	1	775	18	18	2976	1	24	25	28
370	HCEFA10	203917 04/08/99	Uni-ZAP XR	380	1474	1	1474		282	2977	1			4
371	HCEFA50	203917 04/08/99	Uni-ZAP XR	381	2100	1	2100	223	223	2978	1			1

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
372	HCEFA94	203917 04/08/99	Uni-ZAP XR	382	1607	1	1607	232	232	2979	1	8	9	17
373	HCEFC27	203917 04/08/99	Uni-ZAP XR	383	1432	1	1432	224	224	2980	1	22	23	38
374	HCEFG93	203917 04/08/99	Uni-ZAP XR	384	2280	1	2280		166	2981	1			13
375	HCEFH31	203917 04/08/99	Uni-ZAP XR	385	2261	99	2241	260	260	2982	1	31	32	59
376	HCEFK56	PTA-791 09/27/99	Uni-ZAP XR	386	2455	1	2455		79	2983	1	20	21	670
377	HCEFN51	203917 04/08/99	Uni-ZAP XR	387	639	1	639	113	113	2984	1	18	19	45
378	HCEGG08	203979 04/29/99	Uni-ZAP XR	388	2534	979	2025	1114	1114	2985	1	15	16	27
379	HCEGH74	203979 04/29/99	Uni-ZAP XR	389	1124	1	1124	203	203	2986	1	20	21	56
380	HCEGK81	203979 04/29/99	Uni-ZAP XR	390	1786	1	1786	72	72	2987	1	25	26	60
381	HCEGS49	203918 04/08/99	Uni-ZAP XR	391	1688	1	1688	145	145	2988	1	24	25	61

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
382	HCEGU75	203917 04/08/99	Uni-ZAP XR	392	1487	1	1487	84	84	2989	1			31
383	HCEGY33	203917 04/08/99	Uni-ZAP XR	393	2834	1	2803	174	174	2990	1			15
384	HCEHW24	203917 04/08/99	Uni-ZAP XR	394	1380	1	1380	29	29	2991	1			6
385	HCEJL08	203917 04/08/99	Uni-ZAP XR	395	1140	1	1110	175	175	2992	1	20	21	149
386	HCEJP93	203917 04/08/99	Uni-ZAP XR	396	1305	1	1305	20	20	2993	1			23
387	HCELB04	203979 04/29/99	Uni-ZAP XR	397	1962	1	1962		108	2994	1	18	19	58
388	HCEMA08	203959 04/26/99	Uni-ZAP XR	398	1880	1	1880	37	37	2995	1	22	23	60
389	HCENN67	203917 04/08/99	Uni-ZAP XR	399	878	1	878		56	2996	1	15	16	53
390	HCENQ22	203917 04/08/99	Uni-ZAP XR	400	2320	1	2320	263	263	2997	1	31	32	35
391	HCEOF01	203917 04/08/99	Uni-ZAP XR	401	1669	1	1669	242	242	2998	1	32	33	38
392	HCEOF01	203917 04/08/99	Uni-ZAP XR	402	1668	1	1668	242	242	2999	1	32	33	38

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
393	HCEON94	203917 04/08/99	Uni-ZAP XR	403	1677	477	1677	603	603	3000	1	14	15	27
394	HCEOQ67	203979 04/29/99	Uni-ZAP XR	404	992	1	992	18	18	3001	1	29	30	32
395	HCEOV48	PTA-181 06/07/99	Uni-ZAP XR	405	2150	1376	2150	1563	1563	3002	1	22	23	59
396	HCEPC90	203917 04/08/99	Uni-ZAP XR	406	939	1	939	232	232	3003	1	33	34	40
397	HCEPO08	203917 04/08/99	Uni-ZAP XR	407	641	1	641		190	3004	1			2
398	HCESB03	203917 04/08/99	pBluescript	408	883	1	883	228	228	3005	1	20	21	28
399	HCESK44	203917 04/08/99	pBluescript	409	1350	1	1350	223	223	3006	1			8
400	HCETE08	203917 04/08/99	pBluescript	410	2541	201	2541	227	227	3007	1	17	18	20
401	HCETL19	203917 04/08/99	pBluescript	411	647	1	647	114	114	3008	1	33	34	40
402	HCEWD90	203917 04/08/99	Uni-ZAP XR	412	1203	210	635	223	223	3009	1			4

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
403	HCEWE62	203917 04/08/99	Uni-ZAP XR	413	1561	1	1561	158	158	3010	1	20	21	38
404	HCEZW14	203917 04/08/99	Uni-ZAP XR	414	2071	1	2071		141	3011	1			1
405	HCFAT42	203917 04/08/99	pSport1	415	990	1	990	147	147	3012	1	35	36	65
406	HCFAT66	203917 04/08/99	pSport1	416	1780	1	1780	119	119	3013	1	27	28	40
407	HCFBA30	203917 04/08/99	pSport1	417	869	1	869	120	120	3014	1			15
408	HCFBM77	203917 04/08/99	pSport1	418	929	1	929	93	93	3015	1	22	23	39
409	HCFBV39	203959 04/26/99	pSport1	419	1759	890	1759		419	3016	1			3
410	HCFB72	203917 04/08/99	pSport1	420	1718	1	1718	92	92	3017	1	31	32	36
411	HCFBG91	PTA-794 09/27/99	pSport1	421	2927	1720	2921	1854	1854	3018	1	33	34	295
412	HCFCM81	203979 04/29/99	pSport1	422	1677	1	1677	390	390	3019	1	28	29	36

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
413	HCFCW39	203979 04/29/99	pSport1	423	1343	1	1343	32	32	3020	1	14	15	37
414	HCFCY49	203917 04/08/99	pSport1	424	1523	1	1523	53	53	3021	1	27	28	34
415	HCFFDD18	203917 04/08/99	pSport1	425	1691	57	1691	191	191	3022	1	27	28	34
416	HCFLB10	203917 04/08/99	pSport1	426	870	168	870		52	3023	1	5	6	6
417	HCFLC03	203917 04/08/99	pSport1	427	1622	1	1591		621	3024	1	13	14	16
418	HCFLJ52	203917 04/08/99	pSport1	428	1482	1	1482	121	121	3025	1	32	33	319
418	HCFLJ52	203917 04/08/99	pSport1	2600	1464	1	1443		437	5197	1	15	16	101
419	HCFLJ33	203917 04/08/99	pSport1	429	1041	1	1041	78	78	3026	1	19	20	30
420	HCFLP48	203917 04/08/99	pSport1	430	1783	1	1783		44	3027	1	28	29	60
421	HCFLQ12	203917 04/08/99	pSport1	431	2208	119	2208	167	167	3028	1	36	37	49
422	HCFLY20	203917 04/08/99	pSport1	432	1097	27	845	385	385	3029	1			8

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
423	HCFLY20	203917 04/08/99	pSport1	433	1123	38	857	95	95	3030	1	1	2	158
424	HCFMA39	203917 04/08/99	pSport1	434	382	1	382	217	217	3031	1	21	22	42
425	HCFMJ40	203917 04/08/99	pSport1	435	750	1	750		321	3032	1	10	11	22
426	HCFMIL07	203917 04/08/99	pSport1	436	1238	1	1238	110	110	3033	1	27	28	94
427	HCFMR75	PTA-794 09/27/99	pSport1	437	829	1	829	112	112	3034	1	23	24	32
428	HCFMX16	203917 04/08/99	pSport1	438	802	1	802	354	354	3035	1	27	28	28
429	HCFMX88	203917 04/08/99	pSport1	439	1148	1	1148	191	191	3036	1	19	20	49
430	HCFNM40	203917 04/08/99	pSport1	440	1095	1	1095	448	448	3037	1	22	23	31
431	HCFNM50	203917 04/08/99	pSport1	441	1393	1	1393		335	3038	1			25
432	HCFNN16	203917 04/08/99	pSport1	442	1597	1	1597	183	183	3039	1	30	31	46

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
433	HCFNN75	203917 04/08/99	pSport1	443	1641	1	1641	241	241	3040	1	19	20	49
434	HCFOG17	203917 04/08/99	pSport1	444	1470	1	1470	27	27	3041	1	28	29	34
435	HCFOH93	203917 04/08/99	pSport1	445	604	1	604	3	3	3042	1	23	24	31
436	HCGBA15	203917 04/08/99	pSport1	446	981	1	981	83	83	3043	1	26	27	32
437	HCHAC68	203917 04/08/99	pSport1	447	1653	1	1653	201	201	3044	1	33	34	216
438	HCHBP49	PTA-793 09/27/99	pSport1	448	939	1	939	234	234	3045	1	11	12	36
439	HCHCA79	203917 04/08/99	pSport1	449	737	1	737	267	267	3046	1	18	19	59
440	HCHCG33	PTA-181 06/07/99	pSport1	450	2286	549	2286	576	576	3047	1	26	27	55
441	HCHMY57	203917 04/08/99	pSport1	451	1875	1	1875	168	168	3048	1	48	49	347
442	HCHOC06	203917 04/08/99	pSport1	452	518	1	518		341	3049	1			28

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
443	HCHOY52	203917 04/08/99	pSport1	453	1413	25	1393	24	24	3050	1	2	3	410
444	HCHQB93	203917 04/08/99	pSport1	454	2163	996	2163	1321	1321	3051	1	47	48	66
445	HCHQB93	203917 04/08/99	pSport1	455	2163	996	2163	1321	1321	3052	1	47	48	66
446	HCLBK61	203979 04/29/99	Lambda ZAP II	456	1588	574	1563		1050	3053	1	18	19	29
447	HCLCU75	PTA-181 06/07/99	Lambda ZAP II	457	682	1	682		228	3054	1	23	24	83
448	HCMSA37	203917 04/08/99	Uni-ZAP XR	458	907	1	907	90	90	3055	1	26	27	61
449	HCMSR07	203917 04/08/99	Uni-ZAP XR	459	1508	1	1508		309	3056	1	11	12	36
450	HCNAI74	203917 04/08/99	Lambda ZAP II	460	1003	1	1003	168	168	3057	1	16	17	61
451	HCNCT01	203917 04/08/99	Lambda ZAP II	461	678	1	678	241	241	3058	1			7
452	HCNDR39	203979 04/29/99	Lambda ZAP II	462	3281	2461	2841	2671	2671	3059	1			11

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
453	HCNSD91	203917 04/08/99	pBluescript	463	870	1	870	309	309	3060	1			16
454	HCNSF01	PTA-1838 05/09/00	pBluescript	464	1735	771	1725	1011	1011	3061	1	20	21	47
455	HCNSG06	203917 04/08/99	pBluescript	465	509	1	509	23	23	3062	1	20	21	31
456	HCNSG32	203917 04/08/99	pBluescript	466	917	1	917		568	3063	1			8
457	HCPAE41	203917 04/08/99	Uni-ZAP XR	467	676	1	676	46	46	3064	1	29	30	42
458	HCQAK36	203917 04/08/99	Lambda ZAP II	468	1232	100	1192	385	385	3065	1			19
459	HCQAQ47	203917 04/08/99	Lambda ZAP II	469	862	1	862	113	113	3066	1	24	25	39
460	HCQAS72	203917 04/08/99	Lambda ZAP II	470	1388	620	1388	140	140	3067	1	1	2	305
461	HCQBM95	203917 04/08/99	Lambda ZAP II	471	692	1	692	253	253	3068	1			4
462	HCQCM95	203917 04/08/99	Lambda ZAP II	472	2629	1	1909	395	395	3069	1			21

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
463	HCQCM95	203917 04/08/99	Lambda ZAP II	473	2017	183	1996	481	481	3070	1			21
464	HCQCV23	203979 04/29/99	Lambda ZAP II	474	1414	396	1414	516	516	3071	1			25
465	HCQCV23	203979 04/29/99	Lambda ZAP II	475	1412	396	1412	516	516	3072	1			25
466	HCQDD32	203917 04/08/99	Lambda ZAP II	476	884	1	884	72	72	3073	1	20	21	39
467	HCQDD61	203959 04/26/99	Lambda ZAP II	477	875	1	875	292	292	3074	1			9
468	HCQDT67	203917 04/08/99	Lambda ZAP II	478	753	1	753	142	142	3075	1	21	22	44
469	HCRAI29	203918 04/08/99	Uni-ZAP XR	479	690	1	690	175	175	3076	1	38	39	39
470	HCRBI79	203917 04/08/99	Uni-ZAP XR	480	1512	104	1512	199	199	3077	1	20	21	46
471	HCRBL20	203979 04/29/99	Uni-ZAP XR	481	2120	318	2100	394	394	3078	1	33	34	95
472	HCRBX84	203917 04/08/99	Uni-ZAP XR	482	846	45	846	87	87	3079	1	32	33	194
472	HCRBX84	203917 04/08/99	Uni-ZAP XR	2601	1122	1	1122	41	41	5198	1			32

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
473	HCRMA24	PTA-794 09/27/99	pSport1	483	652	1	652	86	86	3080	1	18	19	22
474	HCRMR35	PTA-181 06/07/99	pSport1	484	2909	1842	2577	2164	2164	3081	1	28	29	58
475	HCRMR35	PTA-181 06/07/99	pSport1	485	2918	1842	2577	2164	2164	3082	1	28	29	58
476	HCRMR35	PTA-181 06/07/99	pSport1	486	2918	1842	2577	2164	2164	3083	1	28	29	58
477	HCROC18	PTA-792 09/27/99	pSport1	487	1891	1	1891	367	367	3084	1	18	19	443
478	HCUAE53	203917 04/08/99	ZAP Express	488	1487	1	1487	309	309	3085	1	14	15	31
479	HCUAO46	203917 04/08/99	ZAP Express	489	262	1	262	169	169	3086	1	24	25	31
480	HCUAT74	203917 04/08/99	ZAP Express	490	773	1	767		405	3087	1	15	16	32
481	HCUBA28	203918 04/08/99	ZAP Express	491	218	1	218	65	65	3088	1	26	27	51

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
482	HCUBC45	203917 04/08/99	ZAP Express	492	488	1	488	98	98	3089	1	28	29	37
483	HCUBM41	203917 04/08/99	ZAP Express	493	1269	1	1269	27	27	3090	1	21	22	59
484	HCUBN69	203917 04/08/99	ZAP Express	494	858	1	858		152	3091	1	22	23	39
485	HCUBY47	203918 04/08/99	ZAP Express	495	1107	1	1107		337	3092	1	18	19	120
486	HCUCV66	203917 04/08/99	ZAP Express	496	1114	547	1114	744	744	3093	1	20	21	45
487	HCUDJ41	203917 04/08/99	ZAP Express	497	371	1	371	229	229	3094	1	19	20	20
488	HCUEC55	203917 04/08/99	ZAP Express	498	360	1	360	227	227	3095	1	26	27	44
489	HCUEG85	203917 04/08/99	ZAP Express	499	505	1	505	200	200	3096	1	31	32	35
490	HCUES35	203917 04/08/99	ZAP Express	500	499	1	499		25	3097	1	23	24	33
491	HCUFC77	203917 04/08/99	ZAP Express	501	1545	1	1545	65	65	3098	1	27	28	39
492	HCUFD17	203979 04/29/99	ZAP Express	502	552	1	552	230	230	3099	1	17	18	29

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
493	HCUFD46	203917 04/08/99	ZAP Express	503	600	88	354	101	101	3100	1	21	22	33
494	HCUFE33	203917 04/08/99	ZAP Express	504	522	1	522	90	90	3101	1	14	15	48
495	HCUFJ09	203917 04/08/99	ZAP Express	505	573	226	573	352	352	3102	1	24	25	49
496	HCUFQ58	203917 04/08/99	ZAP Express	506	597	250	597	295	295	3103	1	23	24	34
497	HCUFQ58	203917 04/08/99	ZAP Express	507	594	248	594	293	293	3104	1	23	24	34
498	HCUFX08	203917 04/08/99	ZAP Express	508	1333	1	1333		280	3105	1	9	10	21
499	HCUGB76	203917 04/08/99	ZAP Express	509	391	1	391	263	263	3106	1	35	36	36
500	HCUGK79	203917 04/08/99	ZAP Express	510	182	1	182	80	80	3107	1			4
501	HCUGQ19	203917 04/08/99	ZAP Express	511	587	1	587		359	3108	1	5	6	29
502	HCUGR26	203917 04/08/99	ZAP Express	512	1630	1	1630		27	3109	1	19	20	49
503	HCUGR86	203917 04/08/99	ZAP Express	513	2139	1	2139		831	3110	1	13	14	36

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
504	HCUHE27	203917 04/08/99	ZAP Express	514	819	1	819	213	213	3111	1			10
505	HCUHL82	203917 04/08/99	ZAP Express	515	174	1	174	50	50	3112	1	22	23	31
506	HCUHM71	203917 04/08/99	ZAP Express	516	622	1	622	80	80	3113	1	21	22	84
507	HCWAK88	203917 04/08/99	ZAP Express	517	1993	40	1993	115	115	3114	1	39	40	46
508	HCWAL10	203917 04/08/99	ZAP Express	518	1094	7	1094		362	3115	1			10
509	HCWAT71	203917 04/08/99	ZAP Express	519	2439	1	2439	142	142	3116	1	22	23	35
510	HCWBQ52	203917 04/08/99	ZAP Express	520	859	1	859	284	284	3117	1			28
511	HCWCH16	203979 04/29/99	ZAP Express	521	2295	1	2295	166	166	3118	1			7
512	HCWDM69	203917 04/08/99	ZAP Express	522	1055	150	1055		328	3119	1			4
513	HCWEB38	PTA-1838 05/09/00	ZAP Express	523	1179	8	1179	223	223	3120	1	24	25	60

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
514	HCWEB72	203917 04/08/99	ZAP Express	524	883	1	883	86	86	3121	1	23	24	27
515	HCWEF04	PTA-1838 05/09/00	ZAP Express	525	383	1	356	25	25	3122	1	24	25	119
516	HCWEI82	203917 04/08/99	ZAP Express	526	657	1	657	135	135	3123	1			6
517	HCWEM96	203917 04/08/99	ZAP Express	527	1901	1	1901		1156	3124	1	7	8	36
518	HCWFJ16	203917 04/08/99	ZAP Express	528	375	12	358	227	227	3125	1	18	19	49
519	HCWFJ16	203917 04/08/99	ZAP Express	529	375	12	358	227	227	3126	1	18	19	49
520	HCWFK03	203917 04/08/99	ZAP Express	530	303	1	303	149	149	3127	1	27	28	43
521	HCWHD30	203917 04/08/99	ZAP Express	531	810	1	810	262	262	3128	1			12
522	HCWHT34	203917 04/08/99	ZAP Express	532	1256	1	1256	190	190	3129	1	22	23	32
523	HCWHT52	203917 04/08/99	ZAP Express	533	657	1	657	527	527	3130	1	18	19	43

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
524	HCWKO32	203917 04/08/99	ZAP Express	534	626	1	626	146	146	3131	1	23	24	41
525	HCWLE50	203917 04/08/99	ZAP Express	535	342	1	342	244	244	3132	1	18	19	33
526	HCWUF93	203917 04/08/99	ZAP Express	536	808	366	792	609	609	3133	1	45	46	66
527	HCWUW24	203917 04/08/99	ZAP Express	537	1300	1	1144	27	27	3134	1	24	25	39
528	HCYBA32	203979 04/29/99	pBluescript SK-	538	2092	1	2092	173	173	3135	1	18	19	30
529	HDAAV67	203917 04/08/99	pSport1	539	643	1	643	54	54	3136	1	29	30	38
530	HDABR74	PTA-181 06/07/99	pSport1	540	1896	1	1896		419	3137	1	14	15	243
531	HDABW45	203917 04/08/99	pSport1	541	3362	1	3362	95	95	3138	1	20	21	33
532	HDACJ52	203917 04/08/99	pSport1	542	842	1	842		178	3139	1	17	18	44
533	HDCBM09	PTA-794 09/27/99	pSport1	543	419	1	419	69	69	3140	1	17	18	117

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
534	HDFAB86	203917 04/08/99	pCMVSPORT 2.0	544	1262	1	1262	155	155	3141	1	17	18	39
535	HDFIB37	203917 04/08/99	pCMVSPORT 2.0	545	1624	1	1624	357	357	3142	1	20	21	32
536	HDFMB91	203917 04/08/99	pCMVSPORT 2.0	546	224	1	224	53	53	3143	1	20	21	31
537	HDHAA55	203917 04/08/99	pCMVSPORT 2.0	547	1567	1	1567	93	93	3144	1	31	32	50
538	HDHEA33	203979 04/29/99	pCMVSPORT 2.0	548	1681	1	1681	414	414	3145	1	18	19	85
539	HDHEB12	203917 04/08/99	pCMVSPORT 2.0	549	697	1	697	294	294	3146	1	21	22	67
540	HDHEB80	203917 04/08/99	pCMVSPORT 2.0	550	733	1	733	302	302	3147	1	20	21	28
541	HDHIA16	203917 04/08/99	pCMVSPORT 2.0	551	680	1	680	249	249	3148	1	15	16	39
542	HDHIA26	203917 04/08/99	pCMVSPORT 2.0	552	1661	1	1661	146	146	3149	1	34	35	54
543	HDHMA71	203917 04/08/99	pCMVSPORT 2.0	553	1336	71	1336	210	210	3150	1	20	21	38
544	HDLAL94	203979 04/29/99	pCMVSPORT 2.0	554	3569	548	3569	192	192	3151	1	15	16	179

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
545	HDPAB86	PTA-1838 05/09/00	pCMVSPORT 3.0	555	2074	1	2074	389	389	3152	1	22	23	81
546	HDPAE80	203917 04/08/99	pCMVSPORT 3.0	556	2010	1	2010	181	181	3153	1	24	25	55
547	HDPAQ86	203917 04/08/99	pCMVSPORT 3.0	557	1426	1	1426	90	90	3154	1			29
548	HDPBD56	203917 04/08/99	pCMVSPORT 3.0	558	2382	247	2379	371	371	3155	1	20	21	31
549	HDPBN48	203960 04/26/99	pCMVSPORT 3.0	559	1735	1	1735	126	126	3156	1	19	20	33
550	HDPCG79	203960 04/26/99	pCMVSPORT 3.0	560	1581	1	1581	240	240	3157	1	22	23	24
551	HDPCV29	203960 04/26/99	pCMVSPORT 3.0	561	1226	1	1226	95	95	3158	1			43
552	HDPDA36	203960 04/26/99	pCMVSPORT 3.0	562	3840	1	3840	305	305	3159	1	31	32	32
553	HDPDC59	PTA-791 09/27/99	pCMVSPORT 3.0	563	2243	1	2243	320	320	3160	1	21	22	56
554	HDPFG13	203960 04/26/99	pCMVSPORT 3.0	564	1635	11	1635	170	170	3161	1	43	44	63

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
555	HDPFK27	203960 04/26/99	pCMVSPORT 3.0	565	1533	1	1533		283	3162	1	14	15	34
556	HDPFZ05	203960 04/26/99	pCMVSPORT 3.0	566	2185	1	2185	172	172	3163	1	15	16	42
557	HDPGA84	203960 04/26/99	pCMVSPORT 3.0	567	1119	1	1119	17	17	3164	1	19	20	100
558	HDPGR80	203979 04/29/99	pCMVSPORT 3.0	568	2608	67	1756		1690	3165	1	6	7	41
559	HDPGU14	203918 04/08/99	pCMVSPORT 3.0	569	2322	898	2321	1202	1202	3166	1			3
560	HDPGX09	203960 04/26/99	pCMVSPORT 3.0	570	1371	1	1371	90	90	3167	1	19	20	30
561	HDPJE44	PTA-794 09/27/99	pCMVSPORT 3.0	571	4115	1	4115	169	169	3168	1	35	36	60
562	HDPJE73	PTA-793 09/27/99	pCMVSPORT 3.0	572	2251	1	2251	212	212	3169	1	19	20	38
563	HDPJF35	203959 04/26/99	pCMVSPORT 3.0	573	1011	1	826		102	3170	1	7	8	21
564	HDPJF65	203979 04/29/99	pCMVSPORT 3.0	574	1646	1	1646	38	38	3171	1	36	37	57

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
565	HDPH25	203960 04/26/99	pCMVSPORT 3.0	575	2729	1	2729	181	181	3172	1	48	49	51
566	HDPY31	PTA-793 09/27/99	pCMVSPORT 3.0	576	1978	1	1978	268	268	3173	1	16	17	35
567	HDPJH72	203979 04/29/99	pCMVSPORT 3.0	577	1990	12	1348		603	3174	1	13	14	186
568	HDPJV53	203960 04/26/99	pCMVSPORT 3.0	578	2816	1	2816	145	145	3175	1	16	17	57
569	HDPJV75	203960 04/26/99	pCMVSPORT 3.0	579	1250	1	1250		382	3176	1			23
570	HDPKC55	203960 04/26/99	pCMVSPORT 3.0	580	1795	1	1795	102	102	3177	1	28	29	453
571	HDPKD16	PTA-794 09/27/99	pCMVSPORT 3.0	581	2486	1	2486	274	274	3178	1			21
572	HDPMC52	203979 04/29/99	pCMVSPORT 3.0	582	554	1	554	214	214	3179	1	50	51	78
573	HDPML04	203960 04/26/99	pCMVSPORT 3.0	583	1422	1	1422	98	98	3180	1	24	25	32
574	HDPMM22	203960 04/26/99	pCMVSPORT 3.0	584	1181	1	1181	332	332	3181	1	15	16	35

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
575	HDPNC21	203960 04/26/99	pCMVSPORT 3.0	585	1430	1	1430		40	3182	1	9	10	68
576	HDPNJ26	PTA-181 06/07/99	pCMVSPORT 3.0	586	1719	394	1719	422	422	3183	1	20	21	50
577	HDPOD73	PTA-794 09/27/99	pCMVSPORT 3.0	587	797	1	797	446	446	3184	1			8
578	HDPOT33	PTA-1838 05/09/00	pCMVSPORT 3.0	588	1868	551	1868		691	3185	1	17	18	97
579	HDPPEB70	PTA-791 09/27/99	pCMVSPORT 3.0	589	2444	82	2414	257	257	3186	1	20	21	310
580	HDPPC19	203960 04/26/99	pCMVSPORT 3.0	590	686	1	686	271	271	3187	1	19	20	64
581	HDPPE05	203960 04/26/99	pCMVSPORT 3.0	591	1112	1	1112	303	303	3188	1			16
582	HDPSA70	203960 04/26/99	pCMVSPORT 3.0	592	1254	1	1254	252	252	3189	1	13	14	16
583	HDPSS56	203979 04/29/99	pCMVSPORT 3.0	593	1240	1	1240	186	186	3190	1	24	25	31

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
584	HDPSZ07	203960 04/26/99	pCMVSPORT 3.0	594	1337	1	1009	244	244	3191	1	27	28	39
585	HDPSZ07	203960 04/26/99	pCMVSPORT 3.0	595	1337	1	1009	244	244	3192	1	27	28	39
586	HDPSZ07	203960 04/26/99	pCMVSPORT 3.0	596	1337	1	1009	244	244	3193	1	27	28	39
587	HDPTI49	203979 04/26/99	pCMVSPORT 3.0	597	1724	1	1724	182	182	3194	1	17	18	35
588	HDPTP22	203960 04/29/99	pCMVSPORT 3.0	598	1519	1	1519	236	236	3195	1	26	27	37
589	HDPE25	203960 04/26/99	pCMVSPORT 3.0	599	1108	33	1108	301	301	3196	1	22	23	23
590	HDQGD06	203960 04/26/99	pCMVSPORT 3.0	600	1579	53	1437	469	469	3197	1	19	20	310
591	HDQGD06	203960 04/26/99	pCMVSPORT 3.0	601	1561	53	1437	469	469	3198	1	19	20	310
592	HDQGD06	203960 04/26/99	pCMVSPORT 3.0	602	1581	53	1439	470	470	3199	1	19	20	370
593	HDQGN08	203960 04/26/99	pCMVSPORT 3.0	603	1960	1	1960	96	96	3200	1	31	32	137
594	HDQGO62	203960 04/26/99	pCMVSPORT 3.0	604	1077	482	1077	728	728	3201	1			10

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
595	HDQPM16	PTA-793 09/27/99	pCMVSPORT 3.0	605	2054	1	2054	473	473	3202	1	26	27	39
596	HDRAA17	203960 04/26/99	pCMVSPORT 2.0	606	788	1	788	77	77	3203	1	27	28	50
597	HDRAC68	203960 04/26/99	pCMVSPORT 2.0	607	782	1	782	65	65	3204	1	22	23	50
598	HDSAC78	203960 04/26/99	Uni-ZAP XR	608	1387	1	1387	11	11	3205	1	24	25	32
599	HDSA37	203960 04/26/99	Uni-ZAP XR	609	545	1	545	239	239	3206	1	17	18	55
600	HDSAM57	203960 04/26/99	Uni-ZAP XR	610	924	1	924	226	226	3207	1	20	21	23
601	HDSAO14	203979 04/29/99	Uni-ZAP XR	611	1433	1	1433		208	3208	1	21	22	49
602	HDSAO64	203960 04/26/99	Uni-ZAP XR	612	477	1	477		351	3209	1	11	12	29
603	HDSAP15	203960 04/26/99	Uni-ZAP XR	613	1857	851	1417	976	976	3210	1	28	29	126
604	HDTAR39	203979 04/29/99	pCMVSPORT 2.0	614	1267	1	1267	199	199	3211	1	21	22	52

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
605	HDTAS57	203960 04/26/99	pCMVSPORT 2.0	615	915	1	915	62	62	3212	1	46	47	50
606	HDTBP62	203960 04/26/99	pCMVSPORT 2.0	616	1358	1	1358	203	203	3213	1	30	31	37
607	HDTBQ77	203960 04/26/99	pCMVSPORT 2.0	617	1335	1	1335	348	348	3214	1	30	31	34
608	HDTDA48	203960 04/26/99	pCMVSPORT 2.0	618	932	1	932	105	105	3215	1	20	21	37
609	HDTDE66	203960 04/26/99	pCMVSPORT 2.0	619	697	1	697	223	223	3216	1	33	34	75
610	HDTDG75	203960 04/26/99	pCMVSPORT 2.0	620	611	1	611	410	410	3217	1	13	14	35
611	HDTDS09	203960 04/26/99	pCMVSPORT 2.0	621	676	1	676		443	3218	1			25
612	HDTFF53	203960 04/26/99	pCMVSPORT 2.0	622	572	1	572	19	19	3219	1			9
613	HDTGW76	PTA-181 06/07/99	pCMVSPORT 2.0	623	2235	1	2235	156	156	3220	1	33	34	37
614	HDTGZ56	203960 04/26/99	pCMVSPORT 2.0	624	1476	1	1476	250	250	3221	1	15	16	36

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
615	HDTHZ85	PTA-793 09/27/99	pCMVSPORT 2.0	625	596	1	596	114	114	3222	1			31
616	HDTM39	PTA-793 09/27/99	pCMVSPORT 2.0	626	1735	1	1735	401	401	3223	1	29	30	85
617	HDTKJ29	203960 04/26/99	pCMVSPORT 2.0	627	1388	1	1388	112	112	3224	1	22	23	207
618	HDUAB12	203960 04/26/99	pSport1	628	887	1	887	294	294	3225	1	12	13	33
619	HDUAD68	203960 04/26/99	pSport1	629	804	1	804	35	35	3226	1	31	32	34
620	HE2AC74	PTA-181 06/07/99	Uni-ZAP XR	630	3264	1713	3206	1869	1869	3227	1	26	27	31
621	HE2AC74	PTA-181 06/07/99	Uni-ZAP XR	631	4417	2866	4359	3022	3022	3228	1	26	27	31
622	HE2AC75	203960 04/26/99	Uni-ZAP XR	632	324	1	324	14	14	3229	1	15	16	33
623	HE2AI94	203960 04/26/99	Uni-ZAP XR	633	765	1	765		144	3230	1	25	26	55

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
624	HE2AT61	203960 04/26/99	Uni-ZAP XR	634	853	1	853	487	487	3231	1	21	22	75
625	HE2AX36	203960 04/26/99	Uni-ZAP XR	635	1293	5	1293		34	3232	1			6
626	HE2AY96	203960 04/26/99	Uni-ZAP XR	636	1771	579	1261		1394	3233	1	7	8	12
627	HE2BD72	203960 04/26/99	Uni-ZAP XR	637	699	1	699	217	217	3234	1	15	16	59
628	HE2BH50	203979 04/29/99	Uni-ZAP XR	638	1453	1	1453	129	129	3235	1	18	19	24
629	HE2CB53	203960 04/26/99	Uni-ZAP XR	639	1140	1	1140	121	121	3236	1	20	21	38
630	HE2CC17	203960 04/26/99	Uni-ZAP XR	640	1397	1	1397	70	70	3237	1	20	21	32
631	HE2CJ53	203960 04/26/99	Uni-ZAP XR	641	1883	1	1883	123	123	3238	1	21	22	79
632	HE2CK47	203960 04/26/99	Uni-ZAP XR	642	2220	915	1746	960	960	3239	1	17	18	55
633	HE2CM34	203960 04/26/99	Uni-ZAP XR	643	432	1	432	175	175	3240	1			4
634	HE2DG46	203960 04/26/99	Uni-ZAP XR	644	1799	1	1799	132	132	3241	1	16	17	30

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
635	HE2DI16	203960 04/26/99	Uni-ZAP XR	645	1521	1	1521	95	95	3242	1	16	17	20
636	HE2DJ84	203960 04/26/99	Uni-ZAP XR	646	1185	563	1185		842	3243	1	13	14	59
637	HE2DY23	PTA-791	Uni-ZAP XR	647	1649	1	1649	175	175	3244	1	14	15	30
638	HE2DY25	203918 04/08/99	Uni-ZAP XR	648	3484	279	2191	493	493	3245	1	28	29	34
639	HE2EE80	203979 04/29/99	Uni-ZAP XR	649	1593	1	1593	181	181	3246	1	20	21	44
640	HE2EH45	203960 04/26/99	Uni-ZAP XR	650	933	1	914	213	213	3247	1	14	15	16
641	HE2FE89	203918 04/08/99	Uni-ZAP XR	651	1685	1	1609	117	117	3248	1	28	29	68
642	HE2FR49	203960 04/26/99	Uni-ZAP XR	652	526	77	526	96	96	3249	1	27	28	38
643	HE2GB19	203960 04/26/99	Uni-ZAP XR	653	1582	1	1582	374	374	3250	1			29
644	HE2GO81	203960 04/26/99	Uni-ZAP XR	654	268	1	268	79	79	3251	1			10

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
645	HE2HB61	203960 04/26/99	Uni-ZAP XR	655	755	1	755	154	154	3252	1	28	29	31
646	HE2HB64	203960 04/26/99	Uni-ZAP XR	656	1875	1	1875	225	225	3253	1			36
647	HE2HF76	203960 04/26/99	Uni-ZAP XR	657	1222	1	1222	111	111	3254	1	18	19	42
648	HE2ID09	203960 04/26/99	Uni-ZAP XR	658	2048	1	2048		1331	3255	1	13	14	23
649	HE2IE66	203918 04/08/99	Uni-ZAP XR	659	1746	601	1746	861	861	3256	1			14
650	HE2NW57	203960 04/26/99	Uni-ZAP XR	660	516	1	516	101	101	3257	1	29	30	118
651	HE2OA95	203960 04/26/99	Uni-ZAP XR	661	1671	1	1671		1224	3258	1	9	10	35
652	HE2OC39	203960 04/26/99	Uni-ZAP XR	662	1356	1	1356	79	79	3259	1			1
653	HE2PB61	203979 04/29/99	Uni-ZAP XR	663	880	1	880	19	19	3260	1	17	18	23
654	HE2PI43	203979 04/29/99	Uni-ZAP XR	664	1003	1	1003	69	69	3261	1	14	15	113
655	HE2PJ56	203960 04/26/99	Uni-ZAP XR	665	1061	135	1061	142	142	3262	1	25	26	42

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
656	HE6CJ41	203960 04/26/99	Uni-ZAP XR	666	1080	1	1080		231	3263	1			10
657	HE6DC37	203960 04/26/99	Uni-ZAP XR	667	464	1	464	107	107	3264	1	15	16	23
658	HE6DN83	203960 04/26/99	Uni-ZAP XR	668	1708	1	1708	257	257	3265	1			13
659	HE6EI30	203979 04/29/99	Uni-ZAP XR	669	603	1	603	48	48	3266	1	20	21	86
660	HE6ET70	203960 04/26/99	Uni-ZAP XR	670	1415	1	1415	176	176	3267	1	25	26	35
661	HE6GO65	203960 04/26/99	Uni-ZAP XR	671	780	8	774		364	3268	1	14	15	17
662	HE8AN83	203918 04/08/99	Uni-ZAP XR	672	3334	1	3334	285	285	3269	1	15	16	25
663	HE8AU68	203960 04/26/99	Uni-ZAP XR	673	918	1	918	68	68	3270	1			18
664	HE8BE20	203960 04/26/99	Uni-ZAP XR	674	3193	1	2270	289	289	3271	1	16	17	118
665	HE8BP05	203918 04/08/99	Uni-ZAP XR	675	1859	1	1859		202	3272	1	10	11	14
666	HE8BP64	203979 04/29/99	Uni-ZAP XR	676	2867	1	2867	208	208	3273	1	20	21	380

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
667	HE8BQ49	203960 04/26/99	Uni-ZAP XR	677	1875	12	1875	133	133	3274	1			11
668	HE8BR18	203960 04/26/99	Uni-ZAP XR	678	1651	1	1651	207	207	3275	1	18	19	31
669	HE8BR30	203960 04/26/99	Uni-ZAP XR	679	2292	1	2292	168	168	3276	1			28
670	HE8BT58	203960 04/26/99	Uni-ZAP XR	680	3560	2277	3533	2371	2371	3277	1	26	27	105
671	HE8BU60	203960 04/26/99	Uni-ZAP XR	681	1902	1	1902		244	3278	1			22
672	HE8CA13	203960 04/26/99	Uni-ZAP XR	682	1538	1	1322	111	111	3279	1	17	18	39
673	HE8CC34	203960 04/26/99	Uni-ZAP XR	683	2148	1	2148	163	163	3280	1			28
674	HE8CH08	203960 04/26/99	Uni-ZAP XR	684	2608	1	2556	347	347	3281	1	15	16	36
675	HE8DG02	203960 04/26/99	Uni-ZAP XR	685	1642	1	1642	235	235	3282	1			22
676	HE8DK52	203960 04/26/99	Uni-ZAP XR	686	1783	1	1783	137	137	3283	1	17	18	32

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
677	HE8DZ94	PTA-791 09/27/99	Uni-ZAP XR	687	1799	1	1799	29	29	3284	1	27	28	38
678	HE8EN79	203960 04/26/99	Uni-ZAP XR	688	3198	1	3198	65	65	3285	1	14	15	21
679	HE8EX86	203960 04/26/99	Uni-ZAP XR	689	4185	39	2576	914	914	3286	1	16	17	71
680	HE8FC10	203960 04/26/99	Uni-ZAP XR	690	1054	1	1054		315	3287	1	26	27	145
681	HE8FG15	203960 04/26/99	Uni-ZAP XR	691	2472	2	2472	138	138	3288	1			32
682	HE8FG24	203960 04/26/99	Uni-ZAP XR	692	1606	83	1606	172	172	3289	1	23	24	117
683	HE8FK78	PTA-181 06/07/99	Uni-ZAP XR	693	2505	28	2505	187	187	3290	1	26	27	30
684	HE8FL24	203960 04/26/99	Uni-ZAP XR	694	1271	1	1271	251	251	3291	1	19	20	50
685	HE8FL68	203918 04/08/99	Uni-ZAP XR	695	1748	1	1748	223	223	3292	1			14
686	HE8FR53	203979 04/29/99	Uni-ZAP XR	696	3707	1171	3685	1206	1206	3293	1	22	23	37

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
687	HE8MA27	203960 04/26/99	Uni-ZAP XR	697	1307	1	1307	90	90	3294	1	44	45	56
688	HE8MG56	203960 04/26/99	Uni-ZAP XR	698	2304	12	2303	276	276	3295	1	22	23	90
689	HE8MQ01	PTA-793 09/27/99	Uni-ZAP XR	699	2719	1	2719	127	127	3296	1	25	26	37
690	HE8MS43	203960 04/26/99	Uni-ZAP XR	700	2600	1	2600	1387	1387	3297	1			6
691	HE8MY77	203979 04/29/99	Uni-ZAP XR	701	2721	1	2721	61	61	3298	1	23	24	32
692	HE8NC81	PTA-181 06/07/99	Uni-ZAP XR	702	2626	1	2626	74	74	3299	1			13
692	HE8NC81	PTA-181 06/07/99	Uni-ZAP XR	2602	3357	1	3357	419	419	5199	1	24	25	282
693	HE8NO09	203960 04/26/99	Uni-ZAP XR	703	1034	574	997	837	837	3300	1			35
694	HE8QU21	203960 04/26/99	Uni-ZAP XR	704	1589	1	1589	4	4	3301	1	24	25	62
695	HE8SH74	203960 04/26/99	Uni-ZAP XR	705	3161	1	3161	47	47	3302	1	20	21	28

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
696	HE8UX34	203960 04/26/99	Uni-ZAP XR	706	1409	8	1409	142	142	3303	1	22	23	74
697	HE9AE05	PTA-181 06/07/99	Uni-ZAP XR	707	1931	476	1931	654	654	3304	1	16	17	18
698	HE9BJ14	203960 04/26/99	Uni-ZAP XR	708	2128	1	1934	188	188	3305	1	17	18	30
699	HE9CI81	203960 04/26/99	Uni-ZAP XR	709	2283	1696	2283		1629	3306	1	18	19	26
700	HE9CJ38	203960 04/26/99	Uni-ZAP XR	710	2742	1	2742	85	85	3307	1			20
701	HE9CM11	203960 04/26/99	Uni-ZAP XR	711	1294	1	1294	6	6	3308	1	22	23	34
702	HE9CN58	203960 04/26/99	Uni-ZAP XR	712	930	1	930	139	139	3309	1	14	15	16
703	HE9CV59	203979 04/29/99	Uni-ZAP XR	713	1393	1	1393	152	152	3310	1			27
704	HE9DGS4	203960 04/26/99	Uni-ZAP XR	714	1913	1	1913	295	295	3311	1	16	17	68
705	HE9DH59	PTA-793 09/27/99	Uni-ZAP XR	715	2502	400	2443	701	701	3312	1			12

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
706	HE9DZ47	203960 04/26/99	Uni-ZAP XR	716	1276	1	1219	239	239	3313	1	35	36	44
707	HE9EC36	203960 04/26/99	Uni-ZAP XR	717	1279	318	1279		541	3314	1			6
708	HE9EM54	203960 04/26/99	Uni-ZAP XR	718	1086	1	1086	125	125	3315	1	24	25	26
709	HE9FH28	203960 04/26/99	Uni-ZAP XR	719	1276	1	1276	159	159	3316	1	20	21	30
710	HE9HE13	203960 04/26/99	Uni-ZAP XR	720	2757	1804	2735	1949	1949	3317	1			5
711	HE9HE13	203960 04/26/99	Uni-ZAP XR	721	1547	594	1525	739	739	3318	1			5
712	HE9HF59	203960 04/26/99	Uni-ZAP XR	722	1614	1	1614	412	412	3319	1			6
713	HE9HV71	203960 04/26/99	Uni-ZAP XR	723	937	1	937	200	200	3320	1	20	21	31
714	HE9NB82	203960 04/26/99	Uni-ZAP XR	724	1329	10	1329	60	60	3321	1	26	27	109
715	HE9NE43	PTA-181 06/07/99	Uni-ZAP XR	725	2455	1	2455	276	276	3322	1			19

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
716	HE9RN58	203960 04/26/99	Uni-ZAP XR	726	834	1	834	515	515	3323	1	22	23	26
717	HE9TA42	203960 04/26/99	Uni-ZAP XR	727	3371	2187	3359	2540	2540	3324	1	28	29	36
718	HEAAC21	203960 04/26/99	Uni-ZAP XR	728	1094	1	1094	68	68	3325	1	15	16	63
719	HEAAC39	203960 04/26/99	Uni-ZAP XR	729	1243	1	1243		299	3326	1			5
720	HEAAC48	203960 04/26/99	Uni-ZAP XR	730	818	1	818	178	178	3327	1			30
721	HEAAD63	203960 04/26/99	Uni-ZAP XR	731	847	1	847	107	107	3328	1			10
722	HEAAE19	203960 04/26/99	Uni-ZAP XR	732	662	1	662	296	296	3329	1			14
723	HEAAM54	203960 04/26/99	Uni-ZAP XR	733	2254	1	2254		219	3330	1	18	19	41
724	HEAAM96	203960 04/26/99	Uni-ZAP XR	734	1079	1	1079		217	3331	1			15
725	HEAAN52	PTA-181 06/07/99	Uni-ZAP XR	735	2166	1	2166	377	377	3332	1	12	13	15

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
726	HEAAU28	203960 04/26/99	Uni-ZAP XR	736	632	1	632	73	73	3333	1	35	36	40
727	HEAAW54	203918 04/08/99	Uni-ZAP XR	737	1104	1	1104	196	196	3334	1	23	24	53
728	HEAAW94	203979 04/29/99	Uni-ZAP XR	738	924	1	924	189	189	3335	1			11
729	HEBAP51	203960 04/26/99	Uni-ZAP XR	739	1492	868	1492		1060	3336	1	34	35	37
730	HEBAT05	203960 04/26/99	Uni-ZAP XR	740	638	1	638	216	216	3337	1	24	25	55
731	HEBBF78	203960 04/26/99	Uni-ZAP XR	741	944	298	933		590	3338	1			19
732	HEBBK04	203960 04/26/99	Uni-ZAP XR	742	408	1	408		280	3339	1	10	11	29
733	HEBCN80	203960 04/26/99	Uni-ZAP XR	743	1687	1	1687		322	3340	1	14	15	50
734	HEBCW57	PTA-181 06/07/99	Uni-ZAP XR	744	1266	30	1266	1080	1080	3341	1	27	28	62
735	HEBDF90	203960 04/26/99	Uni-ZAP XR	745	2902	1273	2710	1461	1461	3342	1	19	20	40

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
736	HEBDW31	203960 04/26/99	Uni-ZAP XR	746	1328	486	1305	734	734	3343	1	21	22	142
737	HEBFL36	203960 04/26/99	Uni-ZAP XR	747	590	1	590	381	381	3344	1	25	26	43
738	HEBGC01	203960 04/26/99	Uni-ZAP XR	748	752	1	752	201	201	3345	1	21	22	36
739	HEBGE23	203960 04/26/99	Uni-ZAP XR	749	419	1	419	153	153	3346	1	31	32	81
740	HEBGE85	203960 04/26/99	Uni-ZAP XR	750	949	380	949	615	615	3347	1			7
741	HEBGJ94	203979 04/29/99	Uni-ZAP XR	751	440	1	440	158	158	3348	1	19	20	51
742	HEBGM06	203918 04/08/99	Uni-ZAP XR	752	1504	9	1504	26	26	3349	1	32	33	40
743	HEEAB58	203960 04/26/99	Uni-ZAP XR	753	1635	942	1607	1157	1157	3350	1			17
744	HEEAF49	PTA-792 09/27/99	Uni-ZAP XR	754	2141	1	2141	38	38	3351	1	16	17	41
745	HEEAJ46	203960 04/26/99	Uni-ZAP XR	755	2414	1	2414	291	291	3352	1			7

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
746	HEGAI20	203960 04/26/99	Uni-ZAP XR	756	929	1	929	111	111	3353	1	34	35	57
747	HEIAC52	203960 04/26/99	Uni-ZAP XR	757	3940	680	1336	760	760	3354	1	18	19	52
748	HELAC55	203960 04/26/99	Uni-ZAP XR	758	979	1	979	188	188	3355	1	35	36	38
749	HELAT58	203960 04/26/99	Uni-ZAP XR	759	2105	1	2105	215	215	3356	1	21	22	22
750	HELAW94	203960 04/26/99	Uni-ZAP XR	760	1491	1	1491		182	3357	1			15
751	HELDF80	203960 04/26/99	Uni-ZAP XR	761	1460	1	1460	37	37	3358	1			10
752	HELDH39	203959 04/26/99	Uni-ZAP XR	762	2653	967	2448	1121	1121	3359	1	36	37	43
753	HELDK79	203960 04/26/99	Uni-ZAP XR	763	896	1	896		316	3360	1	15	16	68
754	HELDQ42	203960 04/26/99	Uni-ZAP XR	764	2070	49	2070	712	712	3361	1			26
755	HELEE85	203960 04/26/99	Uni-ZAP XR	765	569	1	569	75	75	3362	1			10
756	HELEL76	203960 04/26/99	Uni-ZAP XR	766	1123	119	1008	165	165	3363	1	20	21	218

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
757	HELEL76	203960 04/26/99	Uni-ZAP XR	767	1255	1	1255	42	42	3364	1	20	21	195
758	HELEO45	203979 04/29/99	Uni-ZAP XR	768	1965	1	1965	80	80	3365	1			21
759	HELFA57	203959 04/26/99	Uni-ZAP XR	769	1901	1	1901		118	3366	1	6	7	18
760	HELFO30	203960 04/26/99	Uni-ZAP XR	770	2354	565	2354	607	607	3367	1	16	17	41
761	HELGF28	203960 04/26/99	Uni-ZAP XR	771	2298	1	2298	255	255	3368	1	12	13	21
762	HELGP60	203960 04/26/99	Uni-ZAP XR	772	1296	1	1296	171	171	3369	1	20	21	29
763	HELHN47	PTA-793 09/27/99	Uni-ZAP XR	773	3147	842	3147	935	935	3370	1	36	37	45
764	HELHP11	203960 04/26/99	Uni-ZAP XR	774	1432	1	1302	293	293	3371	1	21	22	38
765	HELHP11	203960 04/26/99	Uni-ZAP XR	775	1483	1	1483	293	293	3372	1	21	22	38
766	HEMAE30	PTA-181 06/07/99	Uni-ZAP XR	776	1443	1	1443	169	169	3373	1	15	16	30

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
767	HEMBV40	203979 04/29/99	Uni-ZAP XR	777	1213	1	1213	276	276	3374	1	27	28	35
768	HEMCJ80	203960 04/26/99	Uni-ZAP XR	778	2667	195	2512	323	323	3375	1	24	25	78
769	HEMCL55	203960 04/26/99	Uni-ZAP XR	779	1356	1	1356	270	270	3376	1			8
770	HEMDB07	203960 04/26/99	Uni-ZAP XR	780	850	1	850	99	99	3377	1	25	26	34
771	HEMDR05	203960 04/26/99	Uni-ZAP XR	781	1018	1	1018	92	92	3378	1	20	21	76
772	HEMGK71	203979 04/29/99	Uni-ZAP XR	782	1693	1	1693	234	234	3379	1			12
773	HEOMF59	203960 04/26/99	pSport1	783	1136	1	1136	21	21	3380	1	31	32	49
774	HEOMJ73	203960 04/26/99	pSport1	784	2405	1	2405	148	148	3381	1			20
775	HEOMR67	203960 04/26/99	pSport1	785	2937	1	2937	216	216	3382	1	16	17	30
776	HEOMU25	203960 04/26/99	pSport1	786	1709	1	1709	84	84	3383	1	25	26	34
777	HEOMU44	203960 04/26/99	pSport1	787	1885	1	1885		167	3384	1	21	22	28

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
778	HEONI85	203960 04/26/99	pSport1	788	1078	1	1078	136	136	3385	1	25	26	37
779	HEONK04	203960 04/26/99	pSport1	789	1553	1	1553	64	64	3386	1	19	20	31
780	HEONP08	203960 04/26/99	pSport1	790	1258	1	1258	38	38	3387	1	13	14	73
781	HEPAD15	203960 04/26/99	Uni-ZAP XR	791	346	1	346	223	223	3388	1	16	17	41
782	HEPBC23	203960 04/26/99	Uni-ZAP XR	792	541	220	269		123	3389	1	6	7	8
783	HEPBV09	203960 04/26/99	Uni-ZAP XR	793	464	1	464	294	294	3390	1	17	18	40
784	HEPCF35	203960 04/26/99	Uni-ZAP XR	794	453	1	453	259	259	3391	1	22	23	37
785	HEPCU48	203960 04/26/99	Uni-ZAP XR	795	2212	1185	2212	1218	1218	3392	1	25	26	91
786	HEQAH47	PTA-791 09/27/99	pCMVSPORT 3.0	796	1518	1	1518	22	22	3393	1	24	25	48
787	HEQAP92	203960 04/26/99	pCMVSPORT 3.0	797	1498	1	1498		843	3394	1	25	26	43

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
788	HEQAV53	203960 04/26/99	pCMVSPORT 3.0	798	1626	15	1016	130	130	3395	1	32	33	38
789	HEQBJ01	203960 04/26/99	pCMVSPORT 3.0	799	669	1	662	505	505	3396	1			19
790	HEQBJ01	203960 04/26/99	pCMVSPORT 3.0	800	2791	2346	2731	2603	2603	3397	1			19
791	HEQBJ01	203960 04/26/99	pCMVSPORT 3.0	801	2791	2346	2731	2603	2603	3398	1			19
792	HEQBM94	203960 04/26/99	pCMVSPORT 3.0	802	1025	1	1025	76	76	3399	1	50	51	134
793	HEQCB93	203960 04/26/99	pCMVSPORT 3.0	803	920	1	920	81	81	3400	1	22	23	35
794	HERAI63	203960 04/26/99	Uni-ZAP XR	804	815	1	815	227	227	3401	1	17	18	24
795	HERAQ22	203960 04/26/99	Uni-ZAP XR	805	586	1	586	95	95	3402	1	18	19	39
796	HERAS61	203960 04/26/99	Uni-ZAP XR	806	246	1	246		98	3403	1			12
797	HESAG57	PTA-181 06/07/99	Uni-ZAP XR	807	1701	1	1701	453	453	3404	1			13

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
798	HETAA62	203960 04/26/99	Uni-ZAP XR	808	2593	1019	2458	1198	1198	3405	1	25	26	43
799	HETBB70	203960 04/26/99	Uni-ZAP XR	809	728	14	728		263	3406	1			17
800	HETBJ88	PTA-181 06/07/99	Uni-ZAP XR	810	1697	1	1697	183	183	3407	1	41	42	74
801	HETCM67	PTA-181 06/07/99	Uni-ZAP XR	811	2047	1	2047	14	14	3408	1	21	22	435
802	HETDD61	203979 04/29/99	Uni-ZAP XR	812	1805	2	1805	148	148	3409	1	24	25	32
803	HETDD61	203979 04/29/99	Uni-ZAP XR	813	1804	2	1804	148	148	3410	1	24	25	32
804	HETDJ34	203960 04/26/99	Uni-ZAP XR	814	1238	1	1238	64	64	3411	1			27
805	HETDM73	203979 04/29/99	Uni-ZAP XR	815	2272	26	2272	177	177	3412	1			14
806	HETDP76	203960 04/26/99	Uni-ZAP XR	816	2811	1117	2810	1323	1323	3413	1	15	16	105
807	HETFO57	203979 04/29/99	Uni-ZAP XR	817	1758	64	1755	195	195	3414	1	24	25	36

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
808	HETGZ31	203979 04/29/99	Uni-ZAP XR	818	1918	1	1918		127	3415	1			21
809	HETHD26	203960 04/26/99	Uni-ZAP XR	819	1817	172	1817	229	229	3416	1			29
810	HETHM27	203960 04/26/99	Uni-ZAP XR	820	960	1	960	121	121	3417	1	20	21	30
811	HETIN36	203960 04/26/99	Uni-ZAP XR	821	636	1	615		252	3418	1	16	17	51
812	HFAAI17	203960 04/26/99	Uni-ZAP XR	822	1095	1	1095	16	16	3419	1	19	20	30
813	HFAAJ45	203960 04/26/99	Uni-ZAP XR	823	513	182	513	344	344	3420	1	18	19	30
814	HFADF41	203960 04/26/99	Uni-ZAP XR	824	796	1	796	233	233	3421	1			6
815	HFADM09	PTA-1838 05/09/00	Uni-ZAP XR	825	2238	1	2238	236	236	3422	1	22	23	39
816	HFAUA23	203960 04/26/99	Uni-ZAP XR	826	499	1	499	52	52	3423	1	26	27	56
817	HFCAG75	203960 04/26/99	Uni-ZAP XR	827	788	1	788	153	153	3424	1	25	26	44

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
818	HFCAI40	PTA-181 06/07/99	Uni-ZAP XR	828	3011	1	3011		2	3425	1	1	2	756
819	HFCAQ17	203960 04/26/99	Uni-ZAP XR	829	1445	1	1445	20	20	3426	1	49	50	81
820	HFCBC16	203960 04/26/99	Uni-ZAP XR	830	1003	1	1003	141	141	3427	1			29
821	HFCBL53	203979 04/29/99	Uni-ZAP XR	831	1901	237	1838	307	307	3428	1	17	18	39
822	HFCBL53	203979 04/29/99	Uni-ZAP XR	832	1901	237	1838	307	307	3429	1	17	18	39
823	HFCBL53	203979 04/29/99	Uni-ZAP XR	833	1901	237	1838	307	307	3430	1	17	18	39
824	HFCBT29	203960 04/26/99	Uni-ZAP XR	834	1177	1	1177	230	230	3431	1	23	24	32
825	HFCCZ31	203960 04/26/99	Uni-ZAP XR	835	1731	1	1568	169	169	3432	1			10
826	HFCDN13	203960 04/26/99	Uni-ZAP XR	836	1098	1	1098	21	21	3433	1	19	20	92
827	HFCDT67	203960 04/26/99	Uni-ZAP XR	837	1122	1	1122	138	138	3434	1	21	22	103

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
828	HFCDY36	203960 04/26/99	Uni-ZAP XR	838	829	1	829	628	628	3435	1	15	16	30
829	HFCEC45	203979 04/29/99	Uni-ZAP XR	839	1227	1	1227	164	164	3436	1	15	16	93
830	HFCEY43	203960 04/26/99	Uni-ZAP XR	840	1513	1	1513	238	238	3437	1	18	19	46
831	HFEAG55	203960 04/26/99	Uni-ZAP XR	841	650	1	650	43	43	3438	1	21	22	161
832	HFEAU63	203960 04/26/99	Uni-ZAP XR	842	3652	1	3652	9	9	3439	1			11
833	HFEBA88	203957 04/26/99	Uni-ZAP XR	843	814	205	814	385	385	3440	1	29	30	57
834	HFEBK75	PTA-181 06/07/99	Uni-ZAP XR	844	1059	1	1059		228	3441	1	16	17	68
835	HFEBO15	203960 04/26/99	Uni-ZAP XR	845	968	359	934		542	3442	1			3
836	HFEBO17	PTA-181 06/07/99	Uni-ZAP XR	846	990	1	990	136	136	3443	1	17	18	27
837	HFFAE46	203960 04/26/99	Lambda ZAP II	847	968	1	968	93	93	3444	1	19	20	34

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
838	HFFAH01	203918 04/08/99	Lambda ZAP II	848	818	1	769	72	72	3445	1	18	19	50
839	HFFAL70	203960 04/26/99	Lambda ZAP II	849	1134	1	1134	178	178	3446	1	24	25	26
840	HFFAV61	203960 04/26/99	Lambda ZAP II	850	1643	1	1643	56	56	3447	1	29	30	50
841	HFGAB50	203960 04/26/99	Uni-ZAP XR	851	2298	1567	2298	1833	1833	3448	1	23	24	27
842	HFGAE28	203960 04/26/99	Uni-ZAP XR	852	1952	91	1952		347	3449	1			12
843	HFGAN63	203960 04/26/99	Uni-ZAP XR	853	1076	347	1076	507	507	3450	1	34	35	43
844	HFHDN80	PTA-1838 05/09/00	Other	854	561	1	561	259	259	3451	1	24	25	101
845	HFIAB78	203960 04/26/99	pSport1	855	1629	1	1629	183	183	3452	1	20	21	21
846	HFIAD23	203960 04/26/99	pSport1	856	1018	1	1018	30	30	3453	1	20	21	27
847	HFIK06	203960 04/26/99	pSport1	857	892	1	892	302	302	3454	1	22	23	37

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
848	HFICH70	203960 04/26/99	pSport1	858	651	1	651	120	120	3455	1	25	26	47
849	HFHQ57	203960 04/26/99	pSport1	859	1270	1	1270	322	322	3456	1	19	20	47
850	HFHK29	203979 04/29/99	pSport1	860	3145	1366	3145	1611	1611	3457	1	18	19	26
851	HFHK29	203979 04/29/99	pSport1	861	3145	1366	3145	1611	1611	3458	1	18	19	26
852	HFHK29	203979 04/29/99	pSport1	862	3195	1366	3145	1611	1611	3459	1	18	19	26
853	HFHK29	203979 04/29/99	pSport1	863	3195	1366	3145	1611	1611	3460	1	18	19	26
854	HFHQ27	203960 04/26/99	pSport1	864	1262	1	1262	280	280	3461	1	17	18	37
855	HFHQ64	203960 04/26/99	pSport1	865	388	1	388	268	268	3462	1	18	19	19
856	HFHZ61	PTA-181 06/07/99	pSport1	866	408	1	408		2	3463	1	17	18	90
857	HFJD81	203960 04/26/99	pSport1	867	3014	1227	2967	1274	1274	3464	1	38	39	40

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
858	HFJIF44	203918 04/08/99	pSport1	868	1572	9	1510	82	82	3465	1	21	22	35
859	HFITA02	203979 04/29/99	pSport1	869	1207	57	1207	306	306	3466	1	27	28	32
860	HFITF80	203960 04/26/99	pSport1	870	839	1	839	87	87	3467	1	27	28	34
861	HFJUK66	203960 04/26/99	pSport1	871	1332	1	1332	51	51	3468	1	23	24	74
862	HFJUT21	203960 04/26/99	pSport1	872	1978	171	1978		404	3469	1	11	12	24
863	HFIVB04	203979 04/29/99	pSport1	873	626	1	626	227	227	3470	1	27	28	38
864	HFIXC39	203960 04/26/99	pSport1	874	1882	531	1882	774	774	3471	1	32	33	59
865	HFIXC69	203960 04/26/99	pSport1	875	820	1	820	98	98	3472	1	28	29	65
866	HFIXE39	203918 04/08/99	pSport1	876	2485	1	2461	69	69	3473	1	18	19	31
867	HFJYP15	203960 04/26/99	pSport1	877	1793	1	1793	68	68	3474	1	18	19	35
868	HFIZE10	203960 04/26/99	pSport1	878	1005	203	1005	243	243	3475	1	22	23	36

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
869	HFIZF51	203960 04/26/99	pSport1	879	384	1	384	186	186	3476	1	25	26	66
870	HFIZK42	PTA-181 06/07/99	pSport1	880	548	128	548	435	435	3477	1	23	24	24
871	HFIZM89	203960 04/26/99	pSport1	881	499	1	499	143	143	3478	1	24	25	37
872	HFKBA62	203979 04/29/99	Uni-ZAP XR	882	1289	1	1289	120	120	3479	1	24	25	35
873	HFKBC47	203979 04/29/99	Uni-ZAP XR	883	1182	1	1182		6	3480	1	16	17	30
874	HFKDX53	203960 04/26/99	Uni-ZAP XR	884	1648	1	1648		964	3481	1	10	11	111
875	HFKEB14	203960 04/26/99	Uni-ZAP XR	885	1058	1	1058		218	3482	1	19	20	32
876	HFKEG63	203960 04/26/99	Uni-ZAP XR	886	1332	1	1332		211	3483	1	28	29	113
877	HFKES35	203957 04/26/99	Uni-ZAP XR	887	2010	1	2010		414	3484	1	9	10	172
878	HFKES35	203957 04/26/99	Uni-ZAP XR	888	2059	7	2023		414	3485	1	9	10	172

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
879	HFKEU17	203960 04/26/99	Uni-ZAP XR	889	1284	1	1284	229	229	3486	1	19	20	34
880	HFKEV77	PTA-181 06/07/99	Uni-ZAP XR	890	1288	69	531	382	382	3487	1	23	24	68
881	HFKEI15	203960 04/26/99	Uni-ZAP XR	891	1980	687	1980		1033	3488	1	11	12	23
882	HFKEI35	203960 04/26/99	Uni-ZAP XR	892	2501	1	2501	211	211	3489	1	16	17	65
883	HFKEK49	203979 04/29/99	Uni-ZAP XR	893	672	1	672	181	181	3490	1			19
884	HFKEFV88	203917 04/08/99	Uni-ZAP XR	894	1947	1	1942	335	335	3491	1	22	23	34
885	HFKEFV88	203917 04/08/99	Uni-ZAP XR	895	2311	360	2306	695	695	3492	1	22	23	35
886	HFKEFV88	203917 04/08/99	Uni-ZAP XR	896	2311	360	2306	695	695	3493	1	22	23	35
887	HFKEFX64	203960 04/26/99	Uni-ZAP XR	897	779	1	779	127	127	3494	1			14
888	HFOXD49	203918 04/08/99	pSport1	898	715	1	715	56	56	3495	1	22	23	32

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
889	HFOX28	203979 04/29/99	pSport1	899	2053	1	2053		331	3496	1	22	23	47
890	HFOYH74	203960 04/26/99	pSport1	900	396	1	396	278	278	3497	1			19
891	HFOYP02	203960 04/26/99	pSport1	901	916	1	916	13	13	3498	1	20	21	31
892	HFOYR24	PTA-181 06/07/99	pSport1	902	1860	1	1860	202	202	3499	1	18	19	31
893	HFOYR54	203960 04/26/99	pSport1	903	1490	2	1490	8	8	3500	1	23	24	39
894	HFOZB26	203960 04/26/99	pSport1	904	783	1	783	199	199	3501	1			10
895	HFPBF54	203960 04/26/99	Uni-ZAP XR	905	1900	1	1900		347	3502	1	13	14	17
896	HFPBF54	203960 04/26/99	Uni-ZAP XR	906	1900	1	1900		347	3503	1	13	14	17
897	HFPBI93	PTA-181 06/07/99	Uni-ZAP XR	907	732	1	732	205	205	3504	1			29
898	HFPBI64	203960 04/26/99	Uni-ZAP XR	908	802	1	802	230	230	3505	1	19	20	41

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
899	HFPBQ55	203960 04/26/99	Uni-ZAP XR	909	846	1	846	317	317	3506	1			15
900	HFPCK22	203960 04/26/99	Uni-ZAP XR	910	1434	1	1434	56	56	3507	1	22	23	35
901	HFPCM32	203960 04/26/99	Uni-ZAP XR	911	761	1	761	194	194	3508	1	22	23	26
902	HFPCM36	203960 04/26/99	Uni-ZAP XR	912	441	1	441	57	57	3509	1	20	21	33
903	HFPSC84	203960 04/26/99	Uni-ZAP XR	913	452	1	452		101	3510	1			3
904	HFPUC47	203960 04/26/99	Uni-ZAP XR	914	1699	1	1699	12	12	3511	1	15	16	31
905	HFPY66	203960 04/26/99	Uni-ZAP XR	915	1612	1	1612	292	292	3512	1	22	23	38
906	HFPDC65	203960 04/26/99	Uni-ZAP XR	916	963	1	963	277	277	3513	1	28	29	33
907	HFPDE42	203979 04/29/99	Uni-ZAP XR	917	2234	1	2210	88	88	3514	1	22	23	80
908	HFPDE88	203960 04/26/99	Uni-ZAP XR	918	1661	1	1661	238	238	3515	1	30	31	35
909	HFPDO25	203960 04/26/99	Uni-ZAP XR	919	533	1	533	401	401	3516	1	20	21	21

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
910	HFPDP70	203960 04/26/99	Uni-ZAP XR	920	2099	1	2099	168	168	3517	1	24	25	38
911	HFPDR39	203960 04/26/99	Uni-ZAP XR	921	1861	1080	1837	1455	1455	3518	1	29	30	83
912	HFPDX08	203960 04/26/99	Uni-ZAP XR	922	993	19	922	64	64	3519	1	34	35	98
913	HFPEP69	203960 04/26/99	Uni-ZAP XR	923	1080	1	1080	150	150	3520	1	19	20	36
914	HFRAU40	203960 04/26/99	Uni-ZAP XR	924	955	1	955		218	3521	1			14
915	HFRA Y90	203979 04/29/99	Uni-ZAP XR	925	1164	1	1164	12	12	3522	1	15	16	24
916	HFSA Y91	203960 04/26/99	Uni-ZAP XR	926	1929	1	1929	132	132	3523	1	34	35	49
917	HFBC10	203960 04/26/99	Uni-ZAP XR	927	1444	1	1444	100	100	3524	1	43	44	48
918	HFBE94	203960 04/26/99	Uni-ZAP XR	928	878	1	878	130	130	3525	1	35	36	41
919	HFTAN11	203960 04/26/99	Uni-ZAP XR	929	793	1	793	212	212	3526	1	26	27	32
920	HFTAR27	203960 04/26/99	Uni-ZAP XR	930	1441	1	1441	284	284	3527	1	19	20	36

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
921	HFTAR30	203960 04/26/99	Uni-ZAP XR	931	626	1	626	242	242	3528	1	15	16	56
922	HFTAS49	203979 04/29/99	Uni-ZAP XR	932	518	1	518	249	249	3529	1	19	20	23
923	HFTBB50	203960 04/26/99	Uni-ZAP XR	933	1830	1	1830	94	94	3530	1	16	17	136
924	HFTBL17	203979 04/29/99	Uni-ZAP XR	934	1022	1	1000	49	49	3531	1	24	25	33
925	HFTBL17	203979 04/29/99	Uni-ZAP XR	935	1077	1	1077	49	49	3532	1	24	25	33
926	HFTCF02	203960 04/26/99	Uni-ZAP XR	936	1077	123	1077	363	363	3533	1	19	20	20
927	HFTCI85	203960 04/26/99	Uni-ZAP XR	937	1309	1	1309	250	250	3534	1			8
928	HFTCI32	203960 04/26/99	Uni-ZAP XR	938	910	1	910	206	206	3535	1	30	31	35
929	HFTCO17	203959 04/26/99	Uni-ZAP XR	939	2894	1572	2894	1672	1672	3536	1			13
930	HFTCW07	203960 04/26/99	Uni-ZAP XR	940	837	1	837	36	36	3537	1	20	21	32
931	HFTDF32	203960 04/26/99	Uni-ZAP XR	941	1377	1	1377		344	3538	1	8	9	14

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
932	HFTDF79	203960 04/26/99	Uni-ZAP XR	942	1319	242	1319	617	617	3539	1	18	19	31
933	HFTDK11	203960 04/26/99	Uni-ZAP XR	943	2014	321	1996	139	139	3540	1	18	19	187
934	HFTDU08	203960 04/26/99	Uni-ZAP XR	944	1200	1	1200	216	216	3541	1	23	24	25
935	HFVGK67	203960 04/26/99	pBluescript	945	1295	84	1295	375	375	3542	1			21
936	HFVHD38	203960 04/26/99	pBluescript	946	2163	249	2163		2083	3543	1	13	14	27
937	HFVHY57	203960 04/26/99	pBluescript	947	1781	1	1781		1198	3544	1			6
938	HFVIC33	203917 04/08/99	pBluescript	948	2151	62	2151		462	3545	1	24	25	93
939	HFXAK32	203960 04/26/99	Lambda ZAP II	949	1829	1	1829	46	46	3546	1			12
940	HFXAK59	203960 04/26/99	Lambda ZAP II	950	1581	731	1581		962	3547	1	12	13	13
941	HFXBI64	203960 04/26/99	Lambda ZAP II	951	1263	1	1263		146	3548	1	21	22	39
942	HFXBL05	203960 04/26/99	Lambda ZAP II	952	1347	1	1347	203	203	3549	1	27	28	62

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
943	HFXBM52	203960 04/26/99	Lambda ZAP II	953	1277	1	1277	232	232	3550	1	27	28	30
944	HFXBR58	203960 04/26/99	Lambda ZAP II	954	1456	1	1456	263	263	3551	1	17	18	24
945	HFXBV67	203960 04/26/99	Lambda ZAP II	955	1728	1	1728	52	52	3552	1	28	29	45
946	HFXBY20	203960 04/26/99	Lambda ZAP II	956	498	1	498	89	89	3553	1	24	25	136
947	HFXCB70	203960 04/26/99	Lambda ZAP II	957	502	1	502	179	179	3554	1	17	18	19
948	HFXCI42	203960 04/26/99	Lambda ZAP II	958	1099	1	1099		275	3555	1	9	10	26
949	HFXCL59	203960 04/26/99	Lambda ZAP II	959	1757	171	1757	278	278	3556	1	13	14	14
950	HFXCM22	203960 04/26/99	Lambda ZAP II	960	1326	1	1326	49	49	3557	1			4
951	HFXCN18	203960 04/26/99	Lambda ZAP II	961	1237	1	1237	48	48	3558	1			8
952	HFXCS53	203960 04/26/99	Lambda ZAP II	962	1127	1	606	237	237	3559	1	15	16	36
953	HFXDB37	203960 04/26/99	Lambda ZAP II	963	1391	1	1391	159	159	3560	1	18	19	21

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
954	HFXDI32	203960 04/26/99	Lambda ZAP II	964	1856	1	1856	204	204	3561	1			26
955	HFXDI43	203960 04/26/99	Lambda ZAP II	965	1558	1	1558	186	186	3562	1			26
956	HFXDL76	203960 04/26/99	Lambda ZAP II	966	1858	1	1858	11	11	3563	1	18	19	30
957	HFXDM75	203960 04/26/99	Lambda ZAP II	967	1760	1	1760	71	71	3564	1	19	20	21
958	HFXDO18	203960 04/26/99	Lambda ZAP II	968	588	1	588		308	3565	1			9
959	HFXDP44	203960 04/26/99	Lambda ZAP II	969	1453	1	1453	258	258	3566	1	23	24	25
960	HFXDR08	203960 04/26/99	Lambda ZAP II	970	775	68	775	79	79	3567	1	18	19	34
961	HFXDR28	203960 04/26/99	Lambda ZAP II	971	824	1	824		338	3568	1	10	11	21
962	HFXDR28	203960 04/26/99	Lambda ZAP II	972	1298	749	1298		1086	3569	1	10	11	21
963	HFXDR47	203959 04/26/99	Lambda ZAP II	973	1808	1	1808	207	207	3570	1	33	34	78
964	HFXDZ03	203918 04/08/99	Lambda ZAP II	974	1349	1	1349	251	251	3571	1			11

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
965	HFXED33	203960 04/26/99	Lambda ZAP II	975	1953	1	1953	112	112	3572	1	19	20	34
966	HFXEE88	203960 04/26/99	Lambda ZAP II	976	1632	1	1632	59	59	3573	1	21	22	28
967	HFXGR32	203960 04/26/99	Lambda ZAP II	977	1363	1	1363		267	3574	1			16
968	HFXGT51	203960 04/26/99	Lambda ZAP II	978	1302	1	1302	42	42	3575	1	24	25	73
969	HFXGW16	203960 04/26/99	Lambda ZAP II	979	1230	1	1230	125	125	3576	1	17	18	91
970	HFXHC15	203960 04/26/99	Lambda ZAP II	980	361	1	361	158	158	3577	1	23	24	32
971	HFXHI33	PTA-793 09/27/99	Lambda ZAP II	981	1603	1	1603	240	240	3578	1	16	17	39
972	HFXHL21	203960 04/26/99	Lambda ZAP II	982	1647	1	1647	70	70	3579	1	24	25	29
973	HFXHL83	203960 04/26/99	Lambda ZAP II	983	1497	1	1497	217	217	3580	1	22	23	62
974	HFXHM49	203960 04/26/99	Lambda ZAP II	984	1566	1	1566	302	302	3581	1	39	40	76

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
975	HFXHM93	PTA-181 06/07/99	Lambda ZAP II	985	1782	1	1782	307	307	3582	1	28	29	70
976	HFXHN89	203960 04/26/99	Lambda ZAP II	986	1406	1	1406	138	138	3583	1	23	24	34
977	HFXJB21	203960 04/26/99	Lambda ZAP II	987	1311	1	1311	232	232	3584	1	20	21	54
978	HFXJN93	203960 04/26/99	Lambda ZAP II	988	1742	1	1742	197	197	3585	1	23	24	44
979	HFXJS15	203959 04/26/99	Lambda ZAP II	989	1877	62	1877	356	356	3586	1			7
980	HFXJT53	203960 04/26/99	Lambda ZAP II	990	3013	105	3013	111	111	3587	1	39	40	361
981	HFXKKG56	203960 04/26/99	Lambda ZAP II	991	766	1	766	273	273	3588	1	25	26	37
982	HFXKL60	PTA-795 09/27/99	Lambda ZAP II	992	3138	200	3104	210	210	3589	1	30	31	33
983	HFXLG08	PTA-793 09/27/99	Lambda ZAP II	993	1698	1	1698	306	306	3590	1	25	26	104
984	HFXLK91	203960 04/26/99	Lambda ZAP II	994	1848	1	1848	120	120	3591	1	20	21	399

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
985	HFXLM32	PTA-181 06/07/99	Lambda ZAP II	995	740	1	740	378	378	3592	1			23
986	HGBAX83	203960 04/26/99	Uni-ZAP XR	996	1015	1	1012	151	151	3593	1	32	33	39
987	HGBBR29	203959 04/26/99	Uni-ZAP XR	997	1906	1	1693	251	251	3594	1	16	17	61
988	HGBDL51	PTA-181 06/07/99	Uni-ZAP XR	998	1216	1	1216	25	25	3595	1	31	32	48
989	HGBDV35	203960 04/26/99	Uni-ZAP XR	999	1191	1	1191	52	52	3596	1	25	26	71
990	HGBDX28	203960 04/26/99	Uni-ZAP XR	1000	1418	1	1409		231	3597	1			7
991	HGBGX31	203960 04/26/99	Uni-ZAP XR	1001	1854	454	1838	548	548	3598	1	24	25	60
992	HGBHE23	203917 04/08/99	Uni-ZAP XR	1002	695	27	695	243	243	3599	1	23	24	71
993	HGBHI15	203960 04/26/99	Uni-ZAP XR	1003	686	1	686	30	30	3600	1	20	21	30
994	HGCMW39	203917 04/08/99	pSport1	1004	2310	816	2310	1005	1005	3601	1	23	24	32

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
995	HGLAG32	203960 04/26/99	Uni-ZAP XR	1005	774	1	774	39	39	3602	1	18	19	34
996	HGLAH08	203960 04/26/99	Uni-ZAP XR	1006	614	1	614	162	162	3603	1	27	28	28
997	HGLAH86	203960 04/26/99	Uni-ZAP XR	1007	849	1	849	161	161	3604	1	15	16	42
998	HGLBC33	203960 04/26/99	Uni-ZAP XR	1008	762	1	762	91	91	3605	1	9	10	30
999	HGLBG15	203960 04/26/99	Uni-ZAP XR	1009	778	1	778		191	3606	1			26
1000	HGLBM55	203960 04/26/99	Uni-ZAP XR	1010	1621	291	1619	546	546	3607	1	18	19	37
1001	HGLDA95	PTA-181 06/07/99	Uni-ZAP XR	1011	962	1	962	39	39	3608	1	36	37	72
1002	HGLDB06	PTA-181 06/07/99	Uni-ZAP XR	1012	841	1	841		310	3609	1	17	18	39
1003	HGLDE15	203960 04/26/99	Uni-ZAP XR	1013	458	1	458		254	3610	1	20	21	28
1004	HHBEI14	PTA-181 06/07/99	pCMVSPORT 1	1014	1537	1	1537	268	268	3611	1	41	42	48

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1005	HHBGL33	PTA-181 06/07/99	pCMVSPORT 1	1015	519	1	519	219	219	3612	1	18	19	21
1006	HHEAW44	203960 04/26/99	pCMVSPORT 3.0	1016	1734	1	1734	58	58	3613	1	9	10	36
1007	HHEBP28	203960 04/26/99	pCMVSPORT 3.0	1017	1908	8	1830	72	72	3614	1	19	20	54
1008	HHECK41	PTA-795 09/27/99	pCMVSPORT 3.0	1018	513	1	513	51	51	3615	1	34	35	116
1009	HHECR10	203960 04/26/99	pCMVSPORT 3.0	1019	1030	1	1030	128	128	3616	1	14	15	32
1010	HHEMC55	203960 04/26/99	pCMVSPORT 3.0	1020	1063	1	1063	54	54	3617	1	19	20	46
1011	HHEMM20	203960 04/26/99	pCMVSPORT 3.0	1021	1749	1	1749	282	282	3618	1	25	26	42
1012	HHEMM80	203960 04/26/99	pCMVSPORT 3.0	1022	138	1	138	31	31	3619	1	20	21	36
1013	HHEMP35	203960 04/26/99	pCMVSPORT 3.0	1023	1985	1320	1985	1334	1334	3620	1	20	21	51
1014	HHEMZ08	203960 04/26/99	pCMVSPORT 3.0	1024	1576	1	1576	70	70	3621	1	21	22	106

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1015	HHENC17	203960 04/26/99	pCMVSPORT 3.0	1025	2238	77	1699	187	187	3622	1	31	32	36
1016	HHENF95	203960 04/26/99	pCMVSPORT 3.0	1026	1126	1	1126		206	3623	1			18
1017	HHENR74	203960 04/26/99	pCMVSPORT 3.0	1027	1141	1	1141	5	5	3624	1	18	19	62
1018	HHENU33	203960 04/26/99	pCMVSPORT 3.0	1028	1580	1	1580	143	143	3625	1	24	25	30
1019	HHENY07	203960 04/26/99	pCMVSPORT 3.0	1029	2138	1	2138	87	87	3626	1	16	17	18
1020	HHOOK77	203960 04/26/99	pCMVSPORT 3.0	1030	2489	537	1154	790	790	3627	1	42	43	54
1021	HHEPE72	203960 04/26/99	pCMVSPORT 3.0	1031	1060	1	1060	344	344	3628	1			10
1022	HHEPE81	203960 04/26/99	pCMVSPORT 3.0	1032	3333	1017	1973	1393	1393	3629	1			7
1023	HHEPM64	203918 04/08/99	pCMVSPORT 3.0	1033	2020	520	2020	559	559	3630	1	20	21	34
1024	HHEQI04	203960 04/26/99	pCMVSPORT 3.0	1034	747	1	747	476	476	3631	1	39	40	45
1025	HHEQY60	203960 04/26/99	pCMVSPORT 3.0	1035	735	1	735	180	180	3632	1			2

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1026	HHFBA31	203960 04/26/99	Uni-ZAP XR	1036	1723	1	1723	131	131	3633	1	23	24	44
1027	HHFCI81	203979 04/29/99	Uni-ZAP XR	1037	1054	1	1054	68	68	3634	1	18	19	37
1028	HHFCN78	203960 04/26/99	Uni-ZAP XR	1038	1401	1	1401	161	161	3635	1	24	25	31
1029	HHFCT95	203960 04/26/99	Uni-ZAP XR	1039	1447	1	1447	24	24	3636	1	18	19	22
1030	HHFDN16	203960 04/26/99	Uni-ZAP XR	1040	1821	1	1821	183	183	3637	1	26	27	30
1031	HHFEB79	PTA-181 06/07/99	Uni-ZAP XR	1041	3168	1	3168	120	120	3638	1	18	19	756
1031	HHFEB79	PTA-181 06/07/99	Uni-ZAP XR	2603	2443	1	2443	715	715	5200	1	18	19	571
1032	HHFEC39	203960 04/26/99	Uni-ZAP XR	1042	1302	1	1302		1211	3639	1			1
1033	HHFEN34	203960 04/26/99	Uni-ZAP XR	1043	1158	1	1158		270	3640	1			7
1034	HHFFZ01	203979 04/29/99	Uni-ZAP XR	1044	2046	232	2046		288	3641	1	22	23	35

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1035	HHFGI71	203960 04/26/99	Uni-ZAP XR	1045	1590	1	1590	62	62	3642	1	24	25	32
1036	HHFGJ54	203960 04/26/99	Uni-ZAP XR	1046	1711	1	1710	68	68	3643	1			17
1037	HHFGL38	203960 04/26/99	Uni-ZAP XR	1047	2764	1	2764	19	19	3644	1			34
1038	HHFGR75	203960 04/26/99	Uni-ZAP XR	1048	1019	1	1019		213	3645	1	16	17	37
1039	HHFGZ23	203960 04/26/99	Uni-ZAP XR	1049	1279	1	1097	17	17	3646	1	16	17	28
1040	HHFHG26	203960 04/26/99	Uni-ZAP XR	1050	724	1	724	200	200	3647	1	21	22	31
1041	HHFHM47	203960 04/26/99	Uni-ZAP XR	1051	859	1	859		231	3648	1			1
1042	HHGAA76	203960 04/26/99	Lambda ZAP II	1052	1932	1	1932	223	223	3649	1			17
1043	HHGAD46	203960 04/26/99	Lambda ZAP II	1053	1302	201	1302	363	363	3650	1			9
1044	HHGAT09	203960 04/26/99	Lambda ZAP II	1054	545	1	545		314	3651	1			16
1045	HHGBC21	203960 04/26/99	Lambda ZAP II	1055	1141	1	1141	121	121	3652	1	28	29	34

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1046	HHGBF91	203960 04/26/99	Lambda ZAP II	1056	656	1	655	36	36	3653	1	12	13	46
1047	HHGBG63	203960 04/26/99	Lambda ZAP II	1057	798	1	798	25	25	3654	1	26	27	126
1048	HHGBV02	203960 04/26/99	Lambda ZAP II	1058	1221	1	1221	220	220	3655	1	18	19	66
1049	HHGBW55	203960 04/26/99	Lambda ZAP II	1059	438	1	438		122	3656	1	21	22	49
1050	HHGBX88	PTA-181 06/07/99	Lambda ZAP II	1060	442	1	293	234	234	3657	1	22	23	69
1051	HHGCA26	203960 04/26/99	Lambda ZAP II	1061	542	1	542	137	137	3658	1	15	16	38
1052	HHGDA81	203960 04/26/99	Lambda ZAP II	1062	1060	446	1026	676	676	3659	1			19
1053	HHGDI12	203960 04/26/99	Lambda ZAP II	1063	1240	1	1240	21	21	3660	1	26	27	84
1054	HHGDR05	203960 04/26/99	Lambda ZAP II	1064	826	1	826	73	73	3661	1	19	20	36
1055	HHGDR92	203960 04/26/99	Lambda ZAP II	1065	1174	1	1174	113	113	3662	1	15	16	20

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1056	HHGDS56	203960 04/26/99	Lambda ZAP II	1066	1502	1	1502	224	224	3663	1	17	18	27
1057	HHGDW65	203960 04/26/99	Lambda ZAP II	1067	814	1	814		223	3664	1	29	30	32
1058	HHLBA86	203959 04/26/99	pBluescript SK-	1068	1303	1	1303	363	363	3665	1	27	28	39
1059	HHNAC56	203960 04/26/99	pBluescript SK-	1069	1522	1	1522	131	131	3666	1	34	35	36
1060	HHPBG90	203960 04/26/99	Uni-ZAP XR	1070	1572	1	1572	127	127	3667	1	46	47	77
1061	HHPDE28	PTA-791 09/27/99	Uni-ZAP XR	1071	1631	1	1625	290	290	3668	1			26
1062	HHPDJ11	203960 04/26/99	Uni-ZAP XR	1072	1902	1	1902	113	113	3669	1			10
1063	HHPDX86	203960 04/26/99	Uni-ZAP XR	1073	2054	1	2054	350	350	3670	1	23	24	31
1064	HHPEA17	203960 04/26/99	Uni-ZAP XR	1074	1003	1	1003	278	278	3671	1	14	15	39
1065	HHPEB61	203960 04/26/99	Uni-ZAP XR	1075	1832	1	1832	56	56	3672	1	29	30	42

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1066	HHPFP26	203960 04/26/99	Uni-ZAP XR	1076	2352	1	2352		24	3673	1	27	28	80
1067	HHPFS11	203960 04/26/99	Uni-ZAP XR	1077	1050	1	1050	125	125	3674	1	21	22	37
1068	HHPFS15	203979 04/29/99	Uni-ZAP XR	1078	746	1	746	139	139	3675	1	26	27	30
1069	HHPFS18	203960 04/26/99	Uni-ZAP XR	1079	2608	1	2608	127	127	3676	1	28	29	38
1070	HHPGH34	203960 04/26/99	Uni-ZAP XR	1080	1067	1	1067		219	3677	1			5
1071	HHPGU74	203960 04/26/99	Uni-ZAP XR	1081	2466	1	2466	77	77	3678	1	25	26	77
1072	HHPGU87	203960 04/26/99	Uni-ZAP XR	1082	2549	1	2549	242	242	3679	1			28
1073	HHPD42	203960 04/26/99	pBluescript	1083	1068	1	1068	79	79	3680	1	16	17	34
1074	HHPSE03	203960 04/26/99	pBluescript	1084	1546	1	1546	86	86	3681	1	37	38	66
1075	HHPSE55	203960 04/26/99	pBluescript	1085	1392	18	1213	122	122	3682	1	28	29	33
1076	HHPSE70	203917 04/08/99	pBluescript	1086	1250	330	1250		465	3683	1	14	15	34

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1077	HHP SH74	203960 04/26/99	pBluescript	1087	2107	1	2107	167	167	3684	1	26	27	29
1078	HHP SL14	203979 04/29/99	pBluescript	1088	1174	1	1174	65	65	3685	1	38	39	39
1079	HHP SM40	203960 04/26/99	pBluescript	1089	2029	1	2029	23	23	3686	1	25	26	30
1080	HHP TF26	PTA-181 06/07/99	Uni-ZAP XR	1090	1035	162	1035	248	248	3687	1	18	19	38
1081	HHS AD31	203960 04/26/99	Uni-ZAP XR	1091	458	1	458	333	333	3688	1			6
1082	HHS AE74	203918 04/08/99	Uni-ZAP XR	1092	1610	1	1610		151	3689	1			22
1083	HHS AG62	203979 04/29/99	Uni-ZAP XR	1093	1085	1	1085		78	3690	1	16	17	28
1084	HHS AK17	203960 04/26/99	Uni-ZAP XR	1094	910	1	910	161	161	3691	1			16
1085	HHS BJ92	203960 04/26/99	Uni-ZAP XR	1095	1654	1	1654		310	3692	1	13	14	74
1086	HHS BN84	203960 04/26/99	Uni-ZAP XR	1096	1193	357	1192	432	432	3693	1	17	18	27

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1087	HHSCCL24	203960 04/26/99	Uni-ZAP XR	1097	983	1	983		275	3694	1	7	8	25
1088	HHSCQ67	203960 04/26/99	Uni-ZAP XR	1098	847	1	847	112	112	3695	1	29	30	40
1089	HHSCU12	203960 04/26/99	Uni-ZAP XR	1099	282	1	282	175	175	3696	1	17	18	36
1090	HHSCDB43	203960 04/26/99	Uni-ZAP XR	1100	2707	1	1366	46	46	3697	1	17	18	433
1091	HHSDL07	PTA-1838 05/09/00	Uni-ZAP XR	1101	429	1	429	22	22	3698	1	23	24	38
1092	HHSDX07	203979 04/29/99	Uni-ZAP XR	1102	1721	23	1721	40	40	3699	1	16	17	39
1093	HHSEFF54	203960 04/26/99	Uni-ZAP XR	1103	1287	1	1287	591	591	3700	1	21	22	28
1094	HHSEGB85	203960 04/26/99	Uni-ZAP XR	1104	1290	1	1288	145	145	3701	1	18	19	31
1095	HHSEGL84	203960 04/26/99	Uni-ZAP XR	1105	1037	454	1037	847	847	3702	1	15	16	17
1096	HHSEHL79	203960 04/26/99	ZAP Express	1106	946	1	946	55	55	3703	1	21	22	50

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1097	HIABC70	203960 04/26/99	Uni-ZAP XR	1107	1636	1	1636	130	130	3704	1	31	32	65
1098	HIATG10	PTA-181 06/07/99	pBluescript	1108	409	133	409	140	140	3705	1	30	31	34
1099	HIBCO70	PTA-181 06/07/99	Other	1109	1652	1	1652	124	124	3706	1	23	24	43
1100	HIBCR82	203960 04/26/99	Other	1110	1528	1	1528	104	104	3707	1	27	28	55
1101	HIBDA41	203960 04/26/99	Other	1111	1790	1	1790	47	47	3708	1			24
1102	HIBEC45	203960 04/26/99	Other	1112	2324	517	2324	779	779	3709	1	23	24	53
1103	HILBW03	203979 04/29/99	pBluescript SK-	1113	2913	1	2913	331	331	3710	1	22	23	35
1104	HISAE16	203959 04/26/99	pSport1	1114	424	1	424	73	73	3711	1			11
1105	HISAG53	203918 04/08/99	pSport1	1115	1844	817	1844	944	944	3712	1	19	20	28
1106	HISAN63	203957 04/26/99	pSport1	1116	2124	1	2124	597	597	3713	1	22	23	38

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1107	HISAT78	203957 04/26/99	pSport1	1117	2312	835	2287	967	967	3714	1	29	30	66
1108	HISBA38	203957 04/26/99	pSport1	1118	1058	1	1058	169	169	3715	1	32	33	36
1109	HISBB66	203957 04/26/99	pSport1	1119	2732	1309	2732	1536	1536	3716	1	17	18	25
1110	HISCJ20	203957 04/26/99	pSport1	1120	372	1	372	257	257	3717	1	24	25	38
1111	HISCK41	203957 04/26/99	pSport1	1121	2043	1	2043	82	82	3718	1	28	29	33
1112	HISCO45	203957 04/26/99	pSport1	1122	1557	116	1541	315	315	3719	1			32
1113	HISEJ52	203957 04/26/99	pSport1	1123	1699	1	1699	480	480	3720	1	1	2	406
1113	HISEJ52	203957 04/26/99	pSport1	2604	1599	1	1599	369	369	5201	1	1	2	317
1114	HJABC58	203957 04/26/99	pBluescript SK-	1124	1796	1	1796	193	193	3721	1	26	27	58
1115	HJABG59	PTA-181 06/07/99	pBluescript SK-	1125	1535	1	1535		311	3722	1			14

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1116	HJABR75	203957 04/26/99	pBluescript SK-	1126	1328	1	1328	324	324	3723	1	18	19	37
1117	HJABS31	203957 04/26/99	pBluescript SK-	1127	1232	42	1232		1	3724	1	1	2	410
1118	HJABT12	203957 04/26/99	pBluescript SK-	1128	557	1	557	30	30	3725	1	16	17	37
1119	HJACE25	203957 04/26/99	pBluescript SK-	1129	1320	1	1320	322	322	3726	1			26
1120	HJACK21	203957 04/26/99	pBluescript SK-	1130	1271	1	1271	139	139	3727	1	21	22	35
1121	HJBCG74	203957 04/26/99	pBluescript SK-	1131	2455	12	2428	33	33	3728	1	30	31	224
1122	HJBCO21	203957 04/26/99	pBluescript SK-	1132	587	1	553	289	289	3729	1			11
1123	HJBCQ40	203957 04/26/99	pBluescript SK-	1133	1069	1	1069	161	161	3730	1	20	21	51
1124	HJBDM36	203957 04/26/99	pBluescript SK-	1134	2777	1716	2760	1954	1954	3731	1	18	19	40
1125	HJMAF30	203957 04/26/99	pCMVSPORT 3.0	1135	603	1	603	193	193	3732	1	24	25	34
1126	HJMAM72	203957 04/26/99	pCMVSPORT 3.0	1136	403	1	403	300	300	3733	1	17	18	25

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1127	HJMAZ60	203979 04/29/99	pCMVSPORT 3.0	1137	2968	1393	2915	1441	1441	3734	1	25	26	45
1128	HJMBB20	203957 04/26/99	pCMVSPORT 3.0	1138	3021	1305	3021	1376	1376	3735	1	25	26	36
1129	HJMBB20	203957 04/26/99	pCMVSPORT 3.0	1139	3953	2237	3953	2308	2308	3736	1	25	26	36
1130	HJMBB20	203957 04/26/99	pCMVSPORT 3.0	1140	3953	2237	3953	2308	2308	3737	1	25	26	36
1131	HJMBK59	203957 04/26/99	pCMVSPORT 3.0	1141	658	1	658	42	42	3738	1	24	25	70
1132	HJMBP01	203957 04/26/99	pCMVSPORT 3.0	1142	633	1	633	58	58	3739	1	42	43	45
1133	HJMBQ17	203957 04/26/99	pCMVSPORT 3.0	1143	275	1	275	145	145	3740	1	15	16	29
1134	HJMBW62	203957 04/26/99	pCMVSPORT 3.0	1144	1439	1	1439	105	105	3741	1	18	19	58
1135	HJMBX54	203957 04/26/99	pCMVSPORT 3.0	1145	1020	1	1020	81	81	3742	1	17	18	33
1136	HJPAF69	203957 04/26/99	Uni-ZAP XR	1146	1076	1	1076	25	25	3743	1	16	17	33
1137	HJPAQ19	203957 04/26/99	Uni-ZAP XR	1147	1109	1	1109	66	66	3744	1	50	51	290

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1138	HJPAZ35	203979 04/29/99	Uni-ZAP XR	1148	1963	665	1940	832	832	3745	1			24
1139	HJPBI77	203957 04/26/99	Uni-ZAP XR	1149	808	1	538	68	68	3746	1	23	24	25
1140	HJPBN96	203957 04/26/99	Uni-ZAP XR	1150	1036	1	1036	70	70	3747	1	27	28	73
1141	HJPBU47	203959 04/26/99	Uni-ZAP XR	1151	938	234	936	370	370	3748	1	45	46	55
1142	HJPCQ19	203957 04/26/99	Uni-ZAP XR	1152	902	1	902	188	188	3749	1			27
1143	HJPDJ08	203957 04/26/99	Uni-ZAP XR	1153	1044	1	1044	134	134	3750	1	19	20	33
1144	HJPDK61	203918 04/08/99	Uni-ZAP XR	1154	1417	78	1417	320	320	3751	1	11	12	67
1145	HKABI53	203917 04/08/99	pCMVSPORT 2.0	1155	1377	324	1377		642	3752	1			7
1146	HKABN63	203957 04/26/99	pCMVSPORT 2.0	1156	905	1	905	269	269	3753	1	22	23	144
1147	HKACA25	203917 04/08/99	pCMVSPORT 2.0	1157	1888	145	1813		213	3754	1	12	13	18

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1148	HKACO64	PTA-795 09/27/99	pCMVSPORT 2.0	1158	1899	1	1898	290	290	3755	1	24	25	96
1149	HKACP50	203957 04/26/99	pCMVSPORT 2.0	1159	1987	466	1941	530	530	3756	1			15
1150	HKACX90	203957 04/26/99	pCMVSPORT 2.0	1160	906	1	906		146	3757	1			24
1151	HKADI27	203918 04/08/99	pCMVSPORT 2.0	1161	4597	708	4597	125	125	3758	1	25	26	148
1151	HKADI27	203918 04/08/99	pCMVSPORT 2.0	2605	2175	1	2175	243	243	5202	1			18
1152	HKADN26	203957 04/26/99	pCMVSPORT 2.0	1162	558	206	558	335	335	3759	1			14
1153	HKADP79	203957 04/26/99	pCMVSPORT 2.0	1163	1442	78	1442	462	462	3760	1	19	20	36
1154	HKADT55	203957 04/26/99	pCMVSPORT 2.0	1164	1228	1	1228	62	62	3761	1	20	21	25
1155	HKA EK58	203957 04/26/99	pCMVSPORT 2.0	1165	2241	1	2241	154	154	3762	1	1	2	377
1156	HKA EK72	203957 04/26/99	pCMVSPORT 2.0	1166	1577	1	1577	78	78	3763	1	19	20	175

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT 3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1157	HKAFJ47	203918 04/08/99	pCMVSPORT 2.0	1167	2110	1	2110	145	3764	1	24	25	31
1158	HKAFQ41	203979 04/29/99	pCMVSPORT 2.0	1168	1825	315	1791	487	3765	1	25	26	59
1159	HKAHH71	203979 04/29/99	pCMVSPORT 2.0	1169	1349	1	1349	462	3766	1	21	22	48
1160	HKAJA95	203957 04/26/99	pCMVSPORT 2.0	1170	1273	29	1273	73	3767	1			11
1161	HKAKU90	203957 04/26/99	pCMVSPORT 2.0	1171	1468	1	1468	1	3768	1	1	2	417
1162	HKCSZ54	203957 04/26/99	pBluescript	1172	1176	1	1176	33	3769	1	26	27	38
1163	HKFAA15	203957 04/26/99	ZAP Express	1173	1779	1	1779	114	3770	1	15	16	19
1164	HKFBB08	203957 04/26/99	ZAP Express	1174	1473	1	1473	142	3771	1	29	30	30
1165	HKGAG59	203957 04/26/99	pSport1	1175	779	1	779	290	3772	1	20	21	31
1166	HKGAJ81	203957 04/26/99	pSport1	1176	1332	1	1332	151	3773	1	16	17	37
1167	HKGAK45	203957 04/26/99	pSport1	1177	2129	1	2129	762	3774	1	22	23	44

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1168	HKGAP04	203979 04/29/99	pSport1	1178	2332	1	2332	213	213	3775	1	32	33	33
1169	HKGAP57	203918 04/08/99	pSport1	1179	1907	73	1907	1155	1155	3776	1	30	31	44
1170	HKGAW41	PTA-181 06/07/99	pSport1	1180	1639	102	1639		379	3777	1	22	23	25
1171	HKGBA21	203957 04/26/99	pSport1	1181	1858	1	1858	109	109	3778	1	26	27	38
1172	HKGBC33	203957 04/26/99	pSport1	1182	1036	1	1036	43	43	3779	1	21	22	39
1173	HKGBC73	203957 04/26/99	pSport1	1183	849	1	849	301	301	3780	1	16	17	32
1174	HKGBF61	203957 04/26/99	pSport1	1184	1759	1	1759	225	225	3781	1	18	19	25
1175	HKGBH54	203957 04/26/99	pSport1	1185	2220	1	2220	351	351	3782	1	41	42	45
1176	HKGBP52	PTA-795 09/27/99	pSport1	1186	2702	1	2702	36	36	3783	1	25	26	42
1177	HKGCE23	203957 04/26/99	pSport1	1187	1785	1	1410	136	136	3784	1	21	22	29

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1178	HKGCE62	203957 04/26/99	pSport1	1188	1162	1	1162	44	44	3785	1	32	33	40
1179	HKGCK41	203957 04/26/99	pSport1	1189	1024	1	1024	308	308	3786	1	50	51	102
1180	HKGCK41	203957 04/26/99	pSport1	1190	2191	1	1040	316	316	3787	1	50	51	102
1181	HKGCN96	203957 04/26/99	pSport1	1191	1103	1	1103	303	303	3788	1			14
1182	HKGX05	203957 04/26/99	pSport1	1192	1658	1	1658	329	329	3789	1	22	23	57
1183	HKGDA95	203957 04/26/99	pSport1	1193	1167	1	1167		302	3790	1	49	50	122
1184	HKGDO12	PTA-181 06/07/99	pSport1	1194	1671	1	1671	145	145	3791	1	18	19	65
1185	HKIME53	203957 04/26/99	Lambda ZAP II	1195	506	1	506	26	26	3792	1	20	21	40
1186	HKIMG23	203957 04/26/99	Lambda ZAP II	1196	1721	732	1696	751	751	3793	1	22	23	55
1187	HKIXB73	203957 04/26/99	pBluescript	1197	1994	1	1994	235	235	3794	1	18	19	30

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1188	HKIXD68	203957 04/26/99	pBluescript	1198	443	1	443	133	133	3795	1	26	27	38
1189	HKIXR91	203957 04/26/99	pBluescript	1199	1560	1	1560		10	3796	1	23	24	46
1190	HKIXS19	203957 04/26/99	pBluescript	1200	463	1	463	183	183	3797	1	30	31	31
1191	HKIXW45	203957 04/26/99	pBluescript	1201	477	1	477	196	196	3798	1	22	23	32
1192	HKIYU90	203957 04/26/99	pBluescript	1202	687	1	687		396	3799	1	14	15	17
1193	HKMLB81	203957 04/26/99	pBluescript	1203	1877	1	1877	59	59	3800	1	24	25	33
1194	HKMLF77	203957 04/26/99	pBluescript	1204	782	1	782	203	203	3801	1	17	18	30
1195	HKMLM32	203957 04/26/99	pBluescript	1205	1003	1	1003	287	287	3802	1	13	14	15
1196	HKMLR17	203979 04/29/99	pBluescript	1206	1692	1	1692	329	329	3803	1	29	30	294
1197	HKMLT89	203957 04/26/99	pBluescript	1207	1274	1	1274	87	87	3804	1	30	31	40
1198	HKMLV05	203957 04/26/99	pBluescript	1208	1601	223	1601	494	494	3805	1	18	19	32

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1199	HKMLV25	203957 04/26/99	pBluescript	1209	766	1	766	251	251	3806	1	26	27	31
1200	HKMMB79	203917 04/08/99	pBluescript	1210	3237	900	3230	1109	1109	3807	1	16	17	37
1201	HKMMC69	PTA-181 06/07/99	pBluescript	1211	2070	1	2070	150	150	3808	1	20	21	33
1202	HKMMD91	203979 04/29/99	pBluescript	1212	1259	1	1259		312	3809	1	8	9	26
1203	HKMMP90	203957 04/26/99	pBluescript	1213	1905	1	1905	361	361	3810	1			21
1204	HKMMU76	203957 04/26/99	pBluescript	1214	1147	101	1147	228	228	3811	1	29	30	55
1205	HKPAC10	203957 04/26/99	Uni-ZAP XR	1215	998	1	998		126	3812	1			12
1206	HKPAC50	203957 04/26/99	Uni-ZAP XR	1216	810	31	810		334	3813	1	11	12	25
1207	HKPMA08	203957 04/26/99	pBluescript	1217	436	1	436	181	181	3814	1	31	32	37
1208	HKTAC18	203957 04/26/99	Uni-ZAP XR	1218	3714	1908	3714	2010	2010	3815	1	17	18	23

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1209	HL1SA89	203957 04/26/99	pBluescript	1219	1263	1017	1219	1030	1030	3816	1			18
1210	HL2AB60	203957 04/26/99	Uni-ZAP XR	1220	1476	1	1476		145	3817	1	27	28	383
1211	HL3AE69	203957 04/26/99	Uni-ZAP XR	1221	475	1	475		41	3818	1	16	17	44
1212	HL3AF32	203957 04/26/99	Uni-ZAP XR	1222	2708	77	2708		281	3819	1	19	20	37
1213	HLDAV70	203957 04/26/99	pCMVSPORT 3.0	1223	1314	1	1314	38	38	3820	1			29
1214	HLDBL62	PTA-1838 05/09/00	pCMVSPORT 3.0	1224	1022	1	1022		372	3821	1	20	21	123
1215	HLDBV18	203957 04/26/99	pCMVSPORT 3.0	1225	2820	888	2820	1176	1176	3822	1	22	23	40
1216	HLDBV54	203957 04/26/99	pCMVSPORT 3.0	1226	787	1	787	147	147	3823	1	50	51	74
1217	HLDCR26	PTA-181 06/07/99	pCMVSPORT 3.0	1227	2638	496	2480	759	759	3824	1	21	22	43
1218	HLDDM27	PTA-181 06/07/99	pCMVSPORT 3.0	1228	787	94	779	169	169	3825	1	19	20	67

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1219	HLDDM27	PTA-181 06/07/99	pCMVSPORT 3.0	1229	799	102	788	177	177	3826	1	19	20	67
1220	HLDDNF18	203957 04/26/99	pCMVSPORT 3.0	1230	1726	175	1686	197	197	3827	1	23	24	129
1221	HLDDNN84	203957 04/26/99	pCMVSPORT 3.0	1231	936	1	936	12	12	3828	1	29	30	36
1222	HLDDOD77	203957 04/26/99	pCMVSPORT 3.0	1232	698	1	698	106	106	3829	1	25	26	31
1223	HLDDOL74	203957 04/26/99	pCMVSPORT 3.0	1233	903	1	903	193	193	3830	1	26	27	46
1224	HLDDPB24	PTA-181 06/07/99	pCMVSPORT 3.0	1234	1971	85	1971	238	238	3831	1	25	26	55
1225	HLDDRU08	203957 04/26/99	pCMVSPORT 3.0	1235	1086	1	1086	161	161	3832	1	20	21	51
1226	HLDDXF43	203957 04/26/99	pSPORT1	1236	559	1	559	28	28	3833	1	36	37	51
1227	HLEAA10	203957 04/26/99	Uni-ZAP XR	1237	1425	1	1425	34	34	3834	1	22	23	44
1228	HLEAA24	203917 04/08/99	Uni-ZAP XR	1238	2324	1	2324	46	46	3835	1	20	21	45

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1229	HLHAE14	PTA-181 06/07/99	Uni-ZAP XR	1239	2041	1	2032	17	17	3836	1	22	23	40
1230	HLHAE14	PTA-181 06/07/99	Uni-ZAP XR	1240	2054	1	2033	17	17	3837	1	22	23	40
1231	HLHBS54	203957 04/26/99	Uni-ZAP XR	1241	4038	2309	4023	73	73	3838	1	1	2	343
1232	HLHCB33	203957 04/26/99	Uni-ZAP XR	1242	1674	1	1674	9	9	3839	1	21	22	55
1233	HLHCF14	203957 04/26/99	Uni-ZAP XR	1243	878	1	878	423	423	3840	1	11	12	52
1234	HLHCG24	203979 04/29/99	Uni-ZAP XR	1244	1134	1	1134	140	140	3841	1	14	15	51
1235	HLHCH20	203957 04/26/99	Uni-ZAP XR	1245	1260	1	1260	157	157	3842	1			16
1236	HLHCN51	203957 04/26/99	Uni-ZAP XR	1246	1818	1	1818	237	237	3843	1	15	16	48
1237	HLHCT96	PTA-793 09/27/99	Uni-ZAP XR	1247	2154	1	2154	182	182	3844	1			10
1238	HLHDC33	203918 04/08/99	Uni-ZAP XR	1248	947	1	947		63	3845	1			1

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1239	HLHDF92	203918 04/08/99	Uni-ZAP XR	1249	808	1	808	515	515	3846	1	14	15	32
1240	HLHDL05	203918 04/08/99	Uni-ZAP XR	1250	839	1	839	73	73	3847	1	17	18	21
1241	HLHDL37	203979 04/29/99	Uni-ZAP XR	1251	971	1	971		94	3848	1			7
1242	HLHDL69	203979 04/29/99	Uni-ZAP XR	1252	2351	363	2332	432	432	3849	1	20	21	38
1243	HLHDL69	203979 04/29/99	Uni-ZAP XR	1253	2516	364	2502	433	433	3850	1	20	21	38
1244	HLHDL69	203979 04/29/99	Uni-ZAP XR	1254	2556	364	2556	433	433	3851	1	20	21	38
1245	HLHDL69	203979 04/29/99	Uni-ZAP XR	1255	2127	364	2127	433	433	3852	1	20	21	38
1246	HLHDM38	203957 04/26/99	Uni-ZAP XR	1256	1105	1	1105		282	3853	1	11	12	41
1247	HLHDR92	203957 04/26/99	Uni-ZAP XR	1257	1274	1	1274	157	157	3854	1			15
1248	HLHDY94	203979 04/29/99	Uni-ZAP XR	1258	1491	1	1491	153	153	3855	1	18	19	60
1249	HLHEE27	203979 04/29/99	Uni-ZAP XR	1259	3045	1107	2270	1260	1260	3856	1	23	24	61

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1250	HLHEE38	203957 04/26/99	Uni-ZAP XR	1260	880	1	880	270	270	3857	1			17
1251	HLHEI72	PTA-791 09/27/99	Uni-ZAP XR	1261	1154	1	1154	89	89	3858	1	15	16	146
1252	HLHEX62	203957 04/26/99	Uni-ZAP XR	1262	1124	1	1124	23	23	3859	1	20	21	54
1253	HLHFK59	203957 04/26/99	Uni-ZAP XR	1263	816	1	816	220	220	3860	1	22	23	26
1254	HLHFP09	203957 04/26/99	Uni-ZAP XR	1264	1232	1	1232	133	133	3861	1	26	27	31
1255	HLHGG78	203957 04/26/99	Uni-ZAP XR	1265	854	1	854	461	461	3862	1	19	20	23
1256	HLHSG15	203957 04/26/99	pBluescript	1266	2092	1	2092		1368	3863	1	8	9	62
1257	HLHSQ35	203957 04/26/99	pBluescript	1267	1352	1	1352	39	39	3864	1	21	22	26
1258	HLHTB92	203957 04/26/99	pBluescript	1268	1658	1	1658	162	162	3865	1	32	33	37
1259	HLHTP55	203979 04/29/99	pBluescript	1269	774	1	774	161	161	3866	1	19	20	43

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1260	HLIBD74	203957 04/26/99	pCMVSPORT 1	1270	411	1	411	127	127	3867	1	19	20	70
1261	HLIBE41	203957 04/26/99	pCMVSPORT 1	1271	779	97	779	198	198	3868	1	22	23	33
1262	HLIBO16	203957 04/26/99	pCMVSPORT 1	1272	638	202	638	467	467	3869	1	21	22	23
1263	HLJBI22	203957 04/26/99	pCMVSPORT 1	1273	1055	1	1055	416	416	3870	1	16	17	58
1264	HLJEE16	203979 04/29/99	pCMVSPORT 1	1274	1161	1	1161	38	38	3871	1	16	17	28
1265	HLLAX64	203957 04/26/99	pCMVSPORT 1	1275	1681	1	1681	282	282	3872	1	24	25	32
1266	HLLAX95	203957 04/26/99	pCMVSPORT 1	1276	678	1	678	99	99	3873	1	43	44	46
1267	HLLCD67	203957 04/26/99	pCMVSPORT 1	1277	610	1	610	237	237	3874	1	8	9	24
1268	HLMBX89	203957 04/26/99	Lambda ZAP II	1278	1264	1	1264	249	249	3875	1	28	29	32
1269	HLMBZ14	203957 04/26/99	Lambda ZAP II	1279	942	1	942		160	3876	1	27	28	55
1270	HLMCT51	203957 04/26/99	Uni-ZAP XR	1280	1522	1	1522	63	63	3877	1			9

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1271	HLMCT95	203957 04/26/99	Uni-ZAP XR	1281	1446	1	1446	195	195	3878	1	43	44	50
1272	HLMDD65	203957 04/26/99	Uni-ZAP XR	1282	1193	1	1193		183	3879	1	21	22	34
1273	HLMDDH01	203957 04/26/99	Uni-ZAP XR	1283	921	1	621	71	71	3880	1	16	17	57
1274	HLMDDU23	203957 04/26/99	Uni-ZAP XR	1284	1059	1	1059	21	21	3881	1	21	22	72
1275	HLMFDB62	203957 04/26/99	Lambda ZAP II	1285	590	1	590	268	268	3882	1			15
1276	HLMFG52	203957 04/26/99	Lambda ZAP II	1286	965	1	965	185	185	3883	1	16	17	23
1277	HLMFU53	203957 04/26/99	Lambda ZAP II	1287	1175	236	1175		520	3884	1	9	10	59
1278	HLMHG68	203957 04/26/99	Lambda ZAP II	1288	1340	1	1340	141	141	3885	1	44	45	86
1279	HLMHN06	PTA-181 06/07/99	Lambda ZAP II	1289	656	1	656	21	21	3886	1			19
1280	HLMHS15	203957 04/26/99	Lambda ZAP II	1290	927	1	927	271	271	3887	1	17	18	33

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1281	HLMIM84	203957 04/26/99	Lambda ZAP II	1291	1635	1	1635	124	124	3888	1	20	21	48
1282	HLMIN52	203957 04/26/99	Lambda ZAP II	1292	1246	1	1246	100	100	3889	1			20
1283	HLMIQ83	203957 04/26/99	Lambda ZAP II	1293	358	1	358	38	38	3890	1	25	26	98
1284	HLMIW76	203957 04/26/99	Lambda ZAP II	1294	779	1	779	137	137	3891	1	19	20	21
1285	HLMMA65	203979 04/29/99	Lambda ZAP II	1295	446	1	446	131	131	3892	1			10
1286	HLMMT12	203957 04/26/99	Lambda ZAP II	1296	445	38	412	295	295	3893	1	14	15	38
1287	HLMNA19	203957 04/26/99	Lambda ZAP II	1297	1006	127	1006	445	445	3894	1	19	20	59
1288	HLQAD72	PTA-181 06/07/99	Lambda ZAP II	1298	1369	1	1369		142	3895	1	15	16	141
1289	HLQAM30	203957 04/26/99	Lambda ZAP II	1299	676	1	676	28	28	3896	1	44	45	68
1290	HLQAM59	203957 04/26/99	Lambda ZAP II	1300	1061	1	1061	268	268	3897	1			16

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1291	HLQBB23	203957 04/26/99	Lambda ZAP II	1301	2046	442	2046	568	568	3898	1	26	27	29
1292	HLQBF05	203957 04/26/99	Lambda ZAP II	1302	577	1	577	95	95	3899	1	22	23	32
1293	HLQBX64	203959 04/26/99	Lambda ZAP II	1303	2108	762	1349	810	810	3900	1			15
1294	HLQCY09	203957 04/26/99	Lambda ZAP II	1304	1026	1	1026	120	120	3901	1	30	31	72
1295	HLQCZ43	203957 04/26/99	Lambda ZAP II	1305	1103	1	1103		377	3902	1	15	16	37
1296	HLQCZ80	203957 04/26/99	Lambda ZAP II	1306	1421	1	1173	327	327	3903	1	24	25	25
1297	HLQDK45	203957 04/26/99	Lambda ZAP II	1307	845	1	845	95	95	3904	1	18	19	30
1298	HLQDM47	203957 04/26/99	Lambda ZAP II	1308	1781	1	1781	115	115	3905	1	22	23	66
1299	HLQDU77	203957 04/26/99	Lambda ZAP II	1309	919	144	919	181	181	3906	1	18	19	70
1300	HLRAD72	203957 04/26/99	pSport1	1310	495	1	495	113	113	3907	1	25	26	30
1301	HLTCJ67	203957 04/26/99	Uni-ZAP XR	1311	1483	1	1483	246	246	3908	1			20

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1302	HLTCM28	203957 04/26/99	Uni-ZAP XR	1312	1332	1	1332	99	99	3909	1			18
1303	HLTCO22	203959 04/26/99	Uni-ZAP XR	1313	1676	597	1672	758	758	3910	1	29	30	42
1304	HLTDA14	203957 04/26/99	Uni-ZAP XR	1314	947	1	947	99	99	3911	1	23	24	50
1305	HLTDC26	203957 04/26/99	Uni-ZAP XR	1315	1744	1	1474		120	3912	1	25	26	37
1306	HLTDC26	203957 04/26/99	Uni-ZAP XR	1316	1744	1	1474		120	3913	1	25	26	37
1307	HLTDI20	203957 04/26/99	Uni-ZAP XR	1317	1982	1	1982	520	520	3914	1	28	29	38
1308	HLTDI65	203957 04/26/99	Uni-ZAP XR	1318	2689	1	2689		127	3915	1	13	14	34
1309	HLTDK30	203957 04/26/99	Uni-ZAP XR	1319	1573	648	1573		761	3916	1	23	24	140
1310	HLTDL37	203957 04/26/99	Uni-ZAP XR	1320	1986	1	1986	55	55	3917	1			11
1311	HLTDU35	203957 04/26/99	Uni-ZAP XR	1321	1993	1	1993	53	53	3918	1			33
1312	HLTDX04	203957 04/26/99	Uni-ZAP XR	1322	1469	1	1469	71	71	3919	1	43	44	79

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1313	HLTEH84	203957 04/26/99	Uni-ZAP XR	1323	1254	1	1254	88	88	3920	1			31
1314	HLTEL39	PTA-181 06/07/99	Uni-ZAP XR	1324	1827	1	1827		210	3921	1			1
1315	HLTEN11	203957 04/26/99	Uni-ZAP XR	1325	1514	1	1514	122	122	3922	1			23
1316	HLTEW52	203957 04/26/99	Uni-ZAP XR	1326	1535	1	1535	251	251	3923	1	16	17	35
1317	HLTEZ36	203959 04/26/99	Uni-ZAP XR	1327	3051	1	2583	218	218	3924	1			9
1318	HLTGG14	203957 04/26/99	Uni-ZAP XR	1328	1290	1	1290	229	229	3925	1	18	19	22
1319	HLUAF94	203957 04/26/99	Uni-Zap XR	1329	1503	1	1503		257	3926	1			3
1320	HLWAH33	PTA-181 06/07/99	pCMVSPORT 3.0	1330	2289	1	2287	117	117	3927	1	17	18	37
1321	HLWAO11	PTA-793 09/27/99	pCMVSPORT 3.0	1331	2929	1	2929	63	63	3928	1	25	26	43
1322	HLWAW73	203957 04/26/99	pCMVSPORT 3.0	1332	1203	1	1203		676	3929	1	9	10	52

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1323	HLWAX50	203957 04/26/99	pCMVSPORT 3.0	1333	3186	1	3186	178	178	3930	1	28	29	39
1324	HLWBJ93	203957 04/26/99	pCMVSPORT 3.0	1334	1608	1	1608	46	46	3931	1	47	48	72
1325	HLWBK16	203957 04/26/99	pCMVSPORT 3.0	1335	1218	1	1218	492	492	3932	1			11
1326	HLWCC11	203979 04/29/99	pCMVSPORT 3.0	1336	368	1	368	73	73	3933	1	30	31	31
1327	HLYAH81	203957 04/26/99	pSPORT1	1337	685	1	685	254	254	3934	1			6
1328	HLYAH92	203957 04/26/99	pSPORT1	1338	781	1	781	211	211	3935	1	17	18	32
1329	HLYAJ79	203957 04/26/99	pSPORT1	1339	829	1	829	162	162	3936	1	16	17	33
1330	HLYAL28	203957 04/26/99	pSPORT1	1340	1007	1	1007	404	404	3937	1	43	44	53
1331	HLYAR30	203957 04/26/99	pSPORT1	1341	854	1	854	562	562	3938	1	1	2	97
1332	HLYAT54	203957 04/26/99	pSPORT1	1342	1274	1	1274	195	195	3939	1			22
1333	HLYBC81	203957 04/26/99	pSPORT1	1343	1820	1	1820	89	89	3940	1			7

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1334	HL YBD09	203957 04/26/99	pSport1	1344	1984	1	1984	90	90	3941	1	28	29	30
1335	HL YBL67	203959 04/26/99	pSport1	1345	789	1	789	497	497	3942	1			29
1336	HL YBM38	203957 04/26/99	pSport1	1346	354	1	354	223	223	3943	1	19	20	38
1337	HL YBN23	203957 04/26/99	pSport1	1347	1487	1	1487		324	3944	1			6
1338	HL YBN71	203957 04/26/99	pSport1	1348	820	1	820	237	237	3945	1	19	20	34
1339	HL YBS25	203957 04/26/99	pSport1	1349	751	26	751	48	48	3946	1	18	19	34
1340	HL YBT28	203957 04/26/99	pSport1	1350	1084	1	1084	245	245	3947	1	32	33	33
1341	HL YBU15	203957 04/26/99	pSport1	1351	1403	1	1403	369	369	3948	1	18	19	71
1342	HL YBY04	203957 04/26/99	pSport1	1352	1566	1	1566	188	188	3949	1	15	16	20
1343	HL YCE15	203957 04/26/99	pSport1	1353	668	1	668	22	22	3950	1	27	28	35
1344	HL YCH04	203957 04/26/99	pSport1	1354	313	1	313	49	49	3951	1	16	17	33

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1345	HLICY48	203957 04/26/99	pSport1	1355	1082	1	1082		296	3952	1	21	22	49
1346	HLYDE38	203957 04/26/99	pSport1	1356	1316	1	1316	180	180	3953	1	20	21	30
1347	HLYDG55	203957 04/26/99	pSport1	1357	722	1	722	220	220	3954	1	27	28	29
1348	HLYDO73	203957 04/26/99	pSport1	1358	858	1	858	233	233	3955	1			12
1349	HLYEA60	203957 04/26/99	pSport1	1359	1206	46	1196		427	3956	1	14	15	81
1350	HLYEJ14	PTA-181 06/07/99	pSport1	1360	2102	1	2102	94	94	3957	1	22	23	520
1351	HLYEJ44	203957 04/26/99	pSport1	1361	1289	1	1289	124	124	3958	1	30	31	37
1352	HLYEJ51	203957 04/26/99	pSport1	1362	868	1	868	20	20	3959	1	21	22	35
1353	HLYGV19	203957 04/26/99	pSport1	1363	2929	2604	2928	2789	2789	3960	1	27	28	47
1354	HMABK52	PTA-181 06/07/99	Uni-ZAP XR	1364	1141	1	1141	235	235	3961	1	17	18	46

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1355	HMACF34	PTA-181 06/07/99	Uni-ZAP XR	1365	1285	1	1285	324	324	3962	1	17	18	19
1356	HMACL77	PTA-181 06/07/99	Uni-ZAP XR	1366	1796	1	1796	251	251	3963	1			34
1357	HMACT74	203918 04/08/99	Uni-ZAP XR	1367	770	1	749		327	3964	1	24	25	67
1358	HMAJ14	203979 04/29/99	Uni-ZAP XR	1368	1444	91	1444	125	125	3965	1	25	26	257
1359	HMAJ74	203957 04/26/99	Uni-ZAP XR	1369	1892	619	1855	264	264	3966	1	38	39	291
1360	HMAEA58	PTA-791 09/27/99	Uni-ZAP XR	1370	2509	1	2509	40	40	3967	1	18	19	23
1361	HMAJF01	203957 04/26/99	Uni-ZAP XR	1371	2101	37	1769	136	136	3968	1	19	20	64
1362	HMAJS26	203918 04/08/99	Uni-ZAP XR	1372	1322	695	1322	743	743	3969	1	22	23	64
1363	HMCED78	203957 04/26/99	Uni-ZAP XR	1373	1111	134	971	471	471	3970	1			23

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1364	HMCN86	PTA-793 09/27/99	Uni-ZAP XR	1374	1514	1	1514	413	413	3971	1	18	19	82
1365	HMCJ47	203957 04/26/99	Uni-ZAP XR	1375	2799	654	2780	889	889	3972	1	28	29	31
1366	HMCJ88	203957 04/26/99	Uni-ZAP XR	1376	990	1	990		317	3973	1	9	10	11
1367	HMCJ27	PTA-181 06/07/99	Uni-ZAP XR	1377	1316	1	1316		152	3974	1	16	17	49
1368	HMCJ20	203957 04/26/99	Uni-ZAP XR	1378	1146	1	1146	356	356	3975	1	16	17	26
1369	HMCJ19	203959 04/26/99	Uni-ZAP XR	1379	545	1	545	215	215	3976	1	30	31	86
1370	HMDAB44	203957 04/26/99	Uni-ZAP XR	1380	606	1	606		432	3977	1	5	6	58
1371	HMDAE88	203957 04/26/99	Uni-ZAP XR	1381	1035	1	1035	377	377	3978	1	10	11	74
1372	HMDAG62	203957 04/26/99	Uni-ZAP XR	1382	2414	273	2414	399	399	3979	1	24	25	82
1373	HMDAK20	203957 04/26/99	Uni-ZAP XR	1383	582	1	582		149	3980	1	20	21	44

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1374	HMDAM08	203957 04/26/99	Uni-ZAP XR	1384	1426	1	1426	31	31	3981	1	17	18	32
1375	HMDAM39	203957 04/26/99	Uni-ZAP XR	1385	712	1	712	38	38	3982	1			28
1376	HMEAA41	203957 04/26/99	Lambda ZAP II	1386	1702	1	1702		9	3983	1	17	18	137
1377	HMECM77	203957 04/26/99	Lambda ZAP II	1387	1720	1	1720		141	3984	1	12	13	42
1378	HMEEH21	203957 04/26/99	Lambda ZAP II	1388	505	1	505	20	20	3985	1	17	18	38
1379	HMEET36	203957 04/26/99	Lambda ZAP II	1389	485	1	485	56	56	3986	1	26	27	32
1380	HMEEZ07	203957 04/26/99	Lambda ZAP II	1390	2007	1	2007	192	192	3987	1	20	21	42
1381	HMEFB15	203957 04/26/99	Lambda ZAP II	1391	1499	1	1499	117	117	3988	1	27	28	36
1382	HMEIH57	203957 04/26/99	Lambda ZAP II	1392	1626	1	1621	121	121	3989	1	22	23	50
1383	HMEIJ21	203957 04/26/99	Lambda ZAP II	1393	2397	1	1525		553	3990	1	13	14	20
1384	HMEIX79	203957 04/26/99	Lambda ZAP II	1394	641	1	641	235	235	3991	1			11

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1385	HMEJC96	203957 04/26/99	Lambda ZAP II	1395	2163	401	2163	533	533	3992	1			15
1386	HMEJD36	203957 04/26/99	Lambda ZAP II	1396	1312	1	1312	124	124	3993	1	29	30	36
1387	HMEJK28	203959 04/26/99	Lambda ZAP II	1397	1966	710	1933	943	943	3994	1	25	26	26
1388	HMEKH55	203957 04/26/99	Lambda ZAP II	1398	1726	1	1726	245	245	3995	1	19	20	38
1389	HMEKW44	203957 04/26/99	Lambda ZAP II	1399	2006	1	2006	26	26	3996	1	33	34	58
1390	HMEKW71	PTA-181 06/07/99	Lambda ZAP II	1400	1175	1	1175		244	3997	1	38	39	52
1391	HMELW26	203957 04/26/99	Lambda ZAP II	1401	1402	1	1339	92	92	3998	1	18	19	23
1392	HMGBT32	203957 04/26/99	Uni-ZAP XR	1402	1221	1	1221	243	243	3999	1			21
1393	HMHBI09	203979 04/29/99	Uni-ZAP XR	1403	942	1	942	199	199	4000	1	29	30	44
1394	HMHBI93	203959 04/26/99	Uni-ZAP XR	1404	2103	39	2103	319	319	4001	1			15

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1395	HMHBP74	203957 04/26/99	Uni-ZAP XR	1405	1255	190	1255	208	208	4002	1	22	23	33
1396	HMIAC52	203957 04/26/99	Uni-ZAP XR	1406	1642	58	1642	251	251	4003	1	39	40	52
1397	HMIAD75	203918 04/08/99	Uni-ZAP XR	1407	1621	1	1621	75	75	4004	1	18	19	39
1398	HMIAG42	203918 04/08/99	Uni-ZAP XR	1408	1978	1	1978	273	273	4005	1	18	19	36
1399	HMIAG55	203957 04/26/99	Uni-ZAP XR	1409	932	1	932	113	113	4006	1	23	24	35
1400	HMIAG72	203959 04/26/99	Uni-ZAP XR	1410	3052	597	3052	740	740	4007	1	22	23	38
1401	HMIAL39	203957 04/26/99	Uni-ZAP XR	1411	1280	1	1280	212	212	4008	1	27	28	41
1402	HMIAO82	203957 04/26/99	Uni-ZAP XR	1412	3620	1	3620	129	129	4009	1			24
1403	HMIAR42	203957 04/26/99	Uni-ZAP XR	1413	1896	1	1896	236	236	4010	1			8
1404	HMIAS33	203957 04/26/99	Uni-ZAP XR	1414	1361	1	1361		360	4011	1	7	8	24
1405	HMIAS24	203959 04/26/99	Uni-ZAP XR	1415	643	1	643		144	4012	1			16

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1406	HMIBD93	203957 04/26/99	Uni-ZAP XR	1416	1323	734	1323		983	4013	1	27	28	65
1407	HMIBE95	203957 04/26/99	Uni-ZAP XR	1417	2083	1	2083	31	31	4014	1	23	24	90
1408	HMIBG57	203957 04/26/99	Uni-ZAP XR	1418	917	1	917	130	130	4015	1	23	24	33
1409	HMIAC12	203918 04/08/99	pSport1	1419	1014	1	1014		276	4016	1	13	14	40
1410	HMKAN71	PTA-792 09/27/99	pSport1	1420	1720	1	1720	316	316	4017	1	27	28	35
1411	HMKBA33	203957 04/26/99	pSport1	1421	1730	1	1730	87	87	4018	1	19	20	34
1412	HMKCI22	PTA-181 06/07/99	pSport1	1422	2018	296	2018	455	455	4019	1			15
1413	HMKCK32	203957 04/26/99	pSport1	1423	1020	1	1020	60	60	4020	1	20	21	37
1414	HMKCP81	203957 04/26/99	pSport1	1424	957	1	957	131	131	4021	1	17	18	30
1415	HMKCY49	203957 04/26/99	pSport1	1425	1034	1	1034	269	269	4022	1			2

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT 3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1416	HMKDD51	PTA-795 09/27/99	pSport1	1426	1150	1	1150	290	4023	1	22	23	39
1417	HMKDG69	203957 04/26/99	pSport1	1427	1761	1	1761	286	4024	1	11	12	12
1418	HMKDM80	203957 04/26/99	pSport1	1428	616	1	616	386	4025	1	11	12	35
1419	HMKEG88	203957 04/26/99	pSport1	1429	573	1	573	142	4026	1			19
1420	HMMMA09	203957 04/26/99	pSport1	1430	1384	1	1384	127	4027	1	30	31	34
1421	HMMMAK92	203957 04/26/99	pSport1	1431	706	1	706	120	4028	1	30	31	34
1422	HMMMAL32	203957 04/26/99	pSport1	1432	419	1	419	276	4029	1	36	37	48
1423	HMMMBD19	203957 04/26/99	pSport1	1433	1025	1	1025	290	4030	1			9
1424	HMMMBF22	203918 04/08/99	pSport1	1434	1390	1	699	42	4031	1	21	22	35
1425	HMMMBH91	203957 04/26/99	pSport1	1435	783	1	783	234	4032	1	18	19	22

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1426	HMMBH94	203957 04/26/99	pSport1	1436	909	1	909	86	86	4033	1			20
1427	HMMBK55	203957 04/26/99	pSport1	1437	766	1	766	260	260	4034	1	20	21	41
1428	HMMBQ31	203957 04/26/99	pSport1	1438	712	1	712	85	85	4035	1	21	22	37
1429	HMMBR63	203957 04/26/99	pSport1	1439	680	27	680	271	271	4036	1	26	27	44
1430	HMMBS55	203957 04/26/99	pSport1	1440	1004	1	1004	103	103	4037	1	22	23	40
1431	HMMBT47	203957 04/26/99	pSport1	1441	1305	1	1305	43	43	4038	1	23	24	50
1432	HMMCD35	203957 04/26/99	pSport1	1442	813	1	813		308	4039	1	23	24	42
1433	HMMCD95	203957 04/26/99	pSport1	1443	1694	1	1694	236	236	4040	1			17
1434	HMPAB26	203957 04/26/99	pBluescript	1444	865	1	865		563	4041	1			6
1435	HMPAP48	203957 04/26/99	pBluescript	1445	337	1	337	48	48	4042	1	17	18	33
1436	HMQAI38	203957 04/26/99	Uni-ZAP XR	1446	1777	1	1777	24	24	4043	1			20

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1437	HMQAT69	203957 04/26/99	Uni-ZAP XR	1447 1940	125	1940	243	243	4044	1	25	26	138
1438	HMQBL90	203957 04/26/99	Uni-ZAP XR	1448 1469	1	1469	57	57	4045	1	17	18	58
1439	HMQBV82	203957 04/26/99	Uni-ZAP XR	1449 1013	302	1013	499	499	4046	1			5
1440	HMQCA75	203957 04/26/99	Uni-ZAP XR	1450 1265	1	1265	239	239	4047	1	21	22	29
1441	HMQCB37	203957 04/26/99	Uni-ZAP XR	1451 2122	1	2081		288	4048	1			3
1442	HMQCL80	203957 04/26/99	Uni-ZAP XR	1452 643	1	643	97	97	4049	1			12
1443	HMQCX41	203957 04/26/99	Uni-ZAP XR	1453 608	1	608	221	221	4050	1	14	15	62
1444	HMQDM09	203957 04/26/99	Uni-ZAP XR	1454 1277	1	1277		109	4051	1			4
1445	HMQDU07	203957 04/26/99	Uni-ZAP XR	1455 1982	1	1982		159	4052	1	31	32	46
1446	HMSAP33	203957 04/26/99	Uni-ZAP XR	1456 1600	157	1600	316	316	4053	1	16	17	34

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1447	HMSAZ48	PTA-791 09/27/99	Uni-ZAP XR	1457	1818	1	1818	225	225	4054	1	21	22	24
1448	HMSBN18	203979 04/29/99	Uni-ZAP XR	1458	1264	1	1264	231	231	4055	1	20	21	35
1449	HMSBS25	203957 04/26/99	Uni-ZAP XR	1459	1366	1	1366	151	151	4056	1	24	25	35
1450	HMSBU14	203918 04/08/99	Uni-ZAP XR	1460	2077	1	2077		233	4057	1	8	9	24
1451	HMSBZ10	203957 04/26/99	Uni-ZAP XR	1461	1993	1	1993		240	4058	1	17	18	28
1452	HMSCB94	203979 04/29/99	Uni-ZAP XR	1462	1932	1	1932	97	97	4059	1			21
1453	HMSCK12	203957 04/26/99	Uni-ZAP XR	1463	1541	1	1541		257	4060	1			17
1454	HMSCP63	203957 04/26/99	Uni-ZAP XR	1464	934	1	934		132	4061	1	7	8	10
1455	HMSCV75	203918 04/08/99	Uni-ZAP XR	1465	1625	1	1625	146	146	4062	1	19	20	28
1456	HMSCV85	PTA-181 06/07/99	Uni-ZAP XR	1466	2128	256	2128	336	336	4063	1	15	16	31

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1457	HMSCW44	203957 04/26/99	Uni-ZAP XR	1467	1309	1	1309		177	4064	1	29	30	37
1458	HMSCZ19	203979 04/29/99	Uni-ZAP XR	1468	1686	1	1686	157	157	4065	1	48	49	177
1459	HMSDI67	203957 04/26/99	Uni-ZAP XR	1469	2153	1	2153	851	851	4066	1	25	26	93
1460	HMSDI79	203957 04/26/99	Uni-ZAP XR	1470	1790	1	1790		347	4067	1	6	7	13
1461	HMSDR28	203957 04/26/99	Uni-ZAP XR	1471	1319	1	1319	102	102	4068	1			24
1462	HMSFT25	203957 04/26/99	Uni-ZAP XR	1472	1504	1	1504	154	154	4069	1	18	19	27
1463	HMSFW52	203957 04/26/99	Uni-ZAP XR	1473	1645	1	1645	60	60	4070	1			18
1464	HMSGT73	203957 04/26/99	Uni-ZAP XR	1474	1466	1	1466	181	181	4071	1	24	25	54
1465	HMSGU30	203979 04/29/99	Uni-ZAP XR	1475	1828	1	1828	738	738	4072	1	17	18	78
1466	HMSHB42	203957 04/26/99	Uni-ZAP XR	1476	2746	1	1171		1556	4073	1			3
1467	HMSHB42	203957 04/26/99	Uni-ZAP XR	1477	1507	1	1507	182	182	4074	1	18	19	33

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1468	HMSHN72	PTA-181 06/07/99	Uni-ZAP XR	1478	1597	1	1597	84	84	4075	1	17	18	37
1469	HMSHT29	203957 04/26/99	Uni-ZAP XR	1479	1294	1	1294	488	488	4076	1	28	29	38
1470	HMSHW73	203957 04/26/99	Uni-ZAP XR	1480	2284	1	2284	57	57	4077	1	20	21	22
1471	HMSIC48	203957 04/26/99	Uni-ZAP XR	1481	1395	1	1395		271	4078	1	6	7	12
1472	HMSII36	203957 04/26/99	Uni-ZAP XR	1482	1229	1	1229	222	222	4079	1	19	20	53
1473	HMSIT42	203957 04/26/99	Uni-ZAP XR	1483	1166	1	1166	164	164	4080	1	50	51	64
1474	HMSJB08	PTA-791 09/27/99	Uni-ZAP XR	1484	2375	1	2375	141	141	4081	1	22	23	38
1475	HMSJI69	203957 04/26/99	Uni-ZAP XR	1485	1330	1	1330	132	132	4082	1	15	16	21
1476	HMSJM20	203957 04/26/99	Uni-ZAP XR	1486	1470	1	1470	264	264	4083	1			26
1477	HMSJR44	203957 04/26/99	Uni-ZAP XR	1487	1725	1	1725	88	88	4084	1			10

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1478	HMSKQ91	203957 04/26/99	Uni-ZAP XR	1488	903	1	903	147	147	4085	1	33	34	69
1479	HMSKY45	203957 04/26/99	Uni-ZAP XR	1489	1773	1	1773	93	93	4086	1	19	20	30
1480	HMTAF92	203957 04/26/99	pCMVSPORT 3.0	1490	2218	1	2218		1554	4087	1	11	12	31
1481	HMTAT36	203957 04/26/99	pCMVSPORT 3.0	1491	1119	122	1119	198	198	4088	1	20	21	46
1482	HMUAB93	203957 04/26/99	pCMVSPORT 3.0	1492	1955	198	1955	200	200	4089	1	24	25	34
1483	HMUAD65	203957 04/26/99	pCMVSPORT 3.0	1493	1528	1	1528		209	4090	1	18	19	32
1484	HMUAT23	PTA-795 09/27/99	pCMVSPORT 3.0	1494	2069	1	2069	30	30	4091	1	25	26	33
1485	HMUBA47	203957 04/26/99	pCMVSPORT 3.0	1495	1528	787	1522	1074	1074	4092	1	22	23	26
1486	HMUBJ22	203957 04/26/99	pCMVSPORT 3.0	1496	1751	1	1751	201	201	4093	1	15	16	32
1487	HMUBK53	203957 04/26/99	pCMVSPORT 3.0	1497	752	1	752	247	247	4094	1	23	24	119

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1488	HMUBN24	203957 04/26/99	pCMVSPORT 3.0	1498	629	1	629	272	272	4095	1			17
1489	HMUBO15	203957 04/26/99	pCMVSPORT 3.0	1499	809	1	809	120	120	4096	1	31	32	56
1490	HMUBX48	203979 04/29/99	pCMVSPORT 3.0	1500	1208	1	1208		256	4097	1	4	5	89
1491	HMUBY57	203918 04/08/99	pCMVSPORT 3.0	1501	2141	900	2141	1085	1085	4098	1	20	21	30
1492	HMUBZ15	203957 04/26/99	pCMVSPORT 3.0	1502	1118	1	1118		137	4099	1	6	7	40
1493	HMVAL15	203957 04/26/99	pSPORT1	1503	1769	1	1769	385	385	4100	1	17	18	36
1494	HMVBC84	203957 04/26/99	pSPORT1	1504	1149	1	1149	69	69	4101	1	18	19	40
1495	HMVBD68	203957 04/26/99	pSPORT1	1505	1281	1	1281	467	467	4102	1	18	19	22
1496	HMVCG17	203979 04/29/99	pSPORT1	1506	1149	1	1149	253	253	4103	1	21	22	65
1497	HMVCS92	203979 04/29/99	pSPORT1	1507	1869	1	1732	323	323	4104	1	23	24	34
1498	HMVCS92	203979 04/29/99	pSPORT1	1508	1867	1	1730	323	323	4105	1	22	23	47

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1499	HMVDB45	PTA-181 06/07/99	pSport1	1509	1156	1	1156	179	179	4106	1			2
1500	HMVDJ71	PTA-181 06/07/99	pSport1	1510	1472	1	1386	332	332	4107	1	32	33	85
1501	HMVDT89	203917 04/08/99	pSport1	1511	1991	1	1689		2	4108	1	1	2	144
1502	HMVDT89	203917 04/08/99	pSport1	1512	1994	1	1696	285	285	4109	1			13
1503	HMWAO65	203957 04/26/99	Uni-ZAP XR	1513	712	1	712	340	340	4110	1			26
1504	HMWAO82	203957 04/26/99	Uni-ZAP XR	1514	486	1	486	72	72	4111	1	17	18	40
1505	HMWBD74	203957 04/26/99	Uni-ZAP XR	1515	654	181	653	410	410	4112	1	13	14	20
1506	HMWBK35	203957 04/26/99	Uni-ZAP XR	1516	974	1	974	194	194	4113	1	20	21	63
1507	HMWBK86	203957 04/26/99	Uni-ZAP XR	1517	472	1	472		268	4114	1	5	6	6
1508	HMWBL38	203957 04/26/99	Uni-ZAP XR	1518	924	1	924	31	31	4115	1	18	19	33

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1509	HMWBM48	203957 04/26/99	Uni-ZAP XR	1519	807	1	807		11	4116	1	11	12	13
1510	HMWCG28	203979 04/29/99	Uni-ZAP XR	1520	893	1	893	78	78	4117	1	30	31	40
1511	HMWCP85	203957 04/26/99	Uni-ZAP XR	1521	2037	1	1857	116	116	4118	1			14
1512	HMWDG30	203957 04/26/99	Uni-ZAP XR	1522	1417	1	1417		3	4119	1	1	2	207
1513	HMWDU20	203957 04/26/99	Uni-ZAP XR	1523	1837	1	1837	92	92	4120	1	27	28	33
1514	HMWDX57	203957 04/26/99	Uni-ZAP XR	1524	493	1	493	127	127	4121	1			8
1515	HMWDZ63	203957 04/26/99	Uni-ZAP XR	1525	460	1	460	129	129	4122	1	15	16	36
1516	HMWEA77	203957 04/26/99	Uni-ZAP XR	1526	1369	1	1369	213	213	4123	1	16	17	29
1517	HMWEC03	203957 04/26/99	Uni-ZAP XR	1527	1556	1	1555	190	190	4124	1	18	19	28
1518	HMWEF46	203957 04/26/99	Uni-ZAP XR	1528	1259	1	1259	71	71	4125	1	18	19	61
1519	HMWEK43	203979 04/29/99	Uni-ZAP XR	1529	1217	1	1217	126	126	4126	1	16	17	31

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1520	HMWEM23	PTA-181 06/07/99	Uni-ZAP XR	1530	1876	12	1876	152	152	4127	1	1	2	338
1521	HMWEM23	PTA-181 06/07/99	Uni-ZAP XR	1531	1876	12	1876	135	135	4128	1	16	17	17
1522	HMWER46	203959 04/26/99	Uni-ZAP XR	1532	1133	560	1133	726	726	4129	1	20	21	54
1523	HMWEU96	203957 04/26/99	Uni-ZAP XR	1533	1609	1	1609	224	224	4130	1	16	17	28
1523	HMWEU96	203957 04/26/99	Uni-ZAP XR	2606	1603	1	1603	86	86	5203	1	20	21	379
1524	HMWEX02	203957 04/26/99	Uni-ZAP XR	1534	1359	1	1359		48	4131	1	25	26	188
1525	HMWFB65	203957 04/26/99	Uni-ZAP XR	1535	1490	1	1490		29	4132	1			16
1526	HMWFD77	203957 04/26/99	Uni-ZAP XR	1536	522	1	522	17	17	4133	1	31	32	34
1527	HMWFO25	203957 04/26/99	Uni-ZAP XR	1537	930	1	930		185	4134	1	10	11	12
1528	HMWFO89	203979 04/29/99	Uni-ZAP XR	1538	580	1	580	209	209	4135	1	18	19	63

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1529	HMWGM41	203979 04/29/99	Uni-ZAP XR	1539	1224	1	1224	33	33	4136	1	41	42	318
1530	HMWGO95	203957 04/26/99	Uni-ZAP XR	1540	1448	1	1448	175	175	4137	1	28	29	36
1531	HMWGV85	203979 04/29/99	Uni-ZAP XR	1541	1143	1	1143	41	41	4138	1	42	43	109
1532	HMWGX42	203957 04/26/99	Uni-ZAP XR	1542	1589	1	1589	224	224	4139	1	21	22	32
1533	HMWHR36	203957 04/26/99	Uni-ZAP XR	1543	831	1	831	164	164	4140	1	27	28	73
1534	HMWIM55	203957 04/26/99	Uni-ZAP XR	1544	784	1	784	53	53	4141	1	25	26	34
1535	HMWIQ26	203957 04/26/99	Uni-ZAP XR	1545	1178	1	1178	135	135	4142	1	22	23	69
1536	HMWIU49	203957 04/26/99	Uni-ZAP XR	1546	1579	920	1579	989	989	4143	1	20	21	98
1537	HMWJJ62	203957 04/26/99	Uni-ZAP XR	1547	954	1	954	115	115	4144	1	19	20	38
1538	HMWJJ64	203957 04/26/99	Uni-ZAP XR	1548	1563	1	1563	187	187	4145	1	38	39	46
1539	HNAAD76	203957 04/26/99	pSport1	1549	1847	1	1847	116	116	4146	1	37	38	38

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1540	HNAAE24	203957 04/26/99	pSport1	1550	1391	1	1391	107	107	4147	1	18	19	23
1541	HNALD94	203979 04/29/99	pSport1	1551	1272	1	1249	88	88	4148	1	13	14	217
1542	HNALE44	203957 04/26/99	pSport1	1552	2008	1	1980	179	179	4149	1	15	16	35
1543	HNDAC35	203979 04/29/99	pCMV Sport 2.0	1553	772	1	772	78	78	4150	1	31	32	40
1544	HNEAA04	203957 04/26/99	Uni-ZAP XR	1554	822	1	822	112	112	4151	1	26	27	35
1545	HNEAH26	PTA-181 06/07/99	Uni-ZAP XR	1555	1488	1	1488		206	4152	1	21	22	34
1546	HNEAK38	203957 04/26/99	Uni-ZAP XR	1556	1383	105	1383		247	4153	1	27	28	44
1547	HNEAK65	203957 04/26/99	Uni-ZAP XR	1557	748	1	748	66	66	4154	1	20	21	31
1548	HNEBX72	203979 04/29/99	Uni-ZAP XR	1558	1694	21	1694	47	47	4155	1	17	18	46
1549	HNEBY79	203979 04/29/99	Uni-ZAP XR	1559	1572	1	1567	186	186	4156	1	21	22	23

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1550	HNECD52	203957 04/26/99	Uni-ZAP XR	1560	1265	1	1265	262	262	4157	1	19	20	46
1551	HNECL75	203957 04/26/99	Uni-ZAP XR	1561	3332	1077	3135	1120	1120	4158	1	32	33	48
1552	HNECX90	203957 04/26/99	Uni-ZAP XR	1562	1314	1	1314	71	71	4159	1	17	18	37
1553	HNECX90	203957 04/26/99	Uni-ZAP XR	1563	2545	1	1293	71	71	4160	1	17	18	37
1554	HNEDA05	203957 04/26/99	Uni-ZAP XR	1564	1564	575	1564	649	649	4161	1	17	18	59
1555	HNEDP75	203957 04/26/99	Uni-ZAP XR	1565	914	1	914		211	4162	1			24
1556	HNEDQ02	203979 04/29/99	Uni-ZAP XR	1566	2235	131	2235	280	280	4163	1	23	24	56
1557	HNEDU46	203957 04/26/99	Uni-ZAP XR	1567	1369	1	1369	794	794	4164	1	44	45	52
1558	HNFAD50	203917 04/08/99	Uni-ZAP XR	1568	2910	1	2885	227	227	4165	1	1	2	477
1559	HNFAD50	203917 04/08/99	Uni-ZAP XR	1569	2430	1	2389		112	4166	1			8
1560	HNFAG67	203959 04/26/99	Uni-ZAP XR	1570	1525	480	1474		32	4167	1			2

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1561	HNFCJ77	PTA-793 09/27/99	Uni-ZAP XR	1571	2399	1	2399		332	4168	1	11	12	17
1562	HNFCO56	PTA-181 06/07/99	Uni-ZAP XR	1572	1709	299	1645	526	526	4169	1			18
1563	HNFCY57	PTA-791 09/27/99	Uni-ZAP XR	1573	2847	1	2847	317	317	4170	1	10	11	629
1564	HNFDL89	203957 04/26/99	Uni-ZAP XR	1574	2661	1	2661	231	231	4171	1			34
1565	HNFDT73	203957 04/26/99	Uni-ZAP XR	1575	994	1	994	72	72	4172	1	13	14	16
1566	HNFDU92	203957 04/26/99	Uni-ZAP XR	1576	793	1	793	30	30	4173	1			2
1567	HNFDY09	203959 04/26/99	Uni-ZAP XR	1577	1482	1	1226	311	311	4174	1	12	13	15
1568	HNFDY31	203957 04/26/99	Uni-ZAP XR	1578	1336	327	1336		473	4175	1	16	17	60
1569	HNFEA17	203957 04/26/99	Uni-ZAP XR	1579	2253	1	2253		9	4176	1	18	19	47
1570	HNFEF55	203957 04/26/99	Uni-ZAP XR	1580	1481	1	1481	219	219	4177	1	23	24	27

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1571	HNFE12	203957 04/26/99	Uni-ZAP XR	1581	1268	1	1268	281	281	4178	1	17	18	51
1572	HNFFR59	203957 04/26/99	Uni-ZAP XR	1582	1637	1	1637		162	4179	1	17	18	30
1573	HNFGC51	PTA-181 06/07/99	Uni-ZAP XR	1583	2127	1	2127	217	217	4180	1			9
1574	HNFGR15	203959 04/26/99	Uni-ZAP XR	1584	1551	1	1551	292	292	4181	1	12	13	31
1575	HNFGW37	203957 04/26/99	Uni-ZAP XR	1585	874	1	874		219	4182	1	10	11	68
1576	HNFGW53	203957 04/26/99	Uni-ZAP XR	1586	942	1	942	12	12	4183	1	46	47	75
1577	HNFHA34	203957 04/26/99	Uni-ZAP XR	1587	1124	11	1124	246	246	4184	1	16	17	41
1578	HNFHD58	203957 04/26/99	Uni-ZAP XR	1588	1170	1	1170	119	119	4185	1			12
1579	HNHFV68	203957 04/26/99	Uni-ZAP XR	1589	1150	1	1150		281	4186	1			8
1580	HNFIE15	PTA-795 09/27/99	pBluescript	1590	2612	1	2612	107	107	4187	1	26	27	99

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1581	HNFI29	PTA-181 06/07/99	pBluescript	1591	1485	1	1485		150	4188	1			19
1582	HNFI49	203957 04/26/99	pBluescript	1592	1566	1	1566		168	4189	1			20
1583	HNFI27	203957 04/26/99	Uni-ZAP XR	1593	1638	1	1638	288	288	4190	1	20	21	42
1584	HNFI16	203957 04/26/99	Uni-ZAP XR	1594	935	1	935	110	110	4191	1	17	18	32
1585	HNGAC71	203957 04/26/99	Uni-ZAP XR	1595	628	1	628		168	4192	1	15	16	19
1586	HNGAK42	203957 04/26/99	Uni-ZAP XR	1596	410	1	410	15	15	4193	1	19	20	26
1587	HNGAL25	203957 04/26/99	Uni-ZAP XR	1597	1409	1	1409	9	9	4194	1	22	23	35
1588	HNGAT83	203957 04/26/99	Uni-ZAP XR	1598	1300	1	1300	145	145	4195	1	18	19	52
1589	HNGAX06	203959 04/26/99	Uni-ZAP XR	1599	397	1	397	145	145	4196	1	18	19	38
1590	HNGBB09	203957 04/26/99	Uni-ZAP XR	1600	964	1	964	7	7	4197	1	14	15	20

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1591	HNGBC53	PTA-181 06/07/99	Uni-ZAP XR	1601	1004	1	1004	178	178	4198	1	20	21	55
1592	HNGBD94	203957 04/26/99	Uni-ZAP XR	1602	1110	1	1110	22	22	4199	1	13	14	31
1593	HNGBE44	203957 04/26/99	Uni-ZAP XR	1603	639	1	639		208	4200	1			6
1594	HNGBE63	203957 04/26/99	Uni-ZAP XR	1604	1197	1	1197	158	158	4201	1	21	22	44
1595	HNGBI83	PTA-793 09/27/99	Uni-ZAP XR	1605	421	1	421	80	80	4202	1	25	26	34
1596	HNGBJ74	203957 04/26/99	Uni-ZAP XR	1606	1112	1	1112	180	180	4203	1	24	25	74
1597	HNGBP30	203957 04/26/99	Uni-ZAP XR	1607	418	1	418	36	36	4204	1	23	24	36
1598	HNGBQ61	203957 04/26/99	Uni-ZAP XR	1608	759	1	759	164	164	4205	1	44	45	67
1599	HNGBS35	203957 04/26/99	Uni-ZAP XR	1609	1440	2	1102		135	4206	1	4	5	17
1600	HNGBW25	203957 04/26/99	Uni-ZAP XR	1610	961	1	961	15	15	4207	1	24	25	42

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1601	HNGCF29	203957 04/26/99	Uni-ZAP XR	1611	1174	1	1174	202	202	4208	1	20	21	35
1602	HNGCF64	203957 04/26/99	Uni-ZAP XR	1612	1939	1	1939	239	239	4209	1	23	24	55
1603	HNGDF54	203957 04/26/99	Uni-ZAP XR	1613	731	1	731	36	36	4210	1	23	24	92
1604	HNGDH22	203957 04/26/99	Uni-ZAP XR	1614	1374	1	1373		389	4211	1	27	28	83
1605	HNGDH27	203957 04/26/99	Uni-ZAP XR	1615	1000	1	1000	59	59	4212	1	16	17	38
1606	HNGDN07	203979 04/29/99	Uni-ZAP XR	1616	1122	1	1122	78	78	4213	1	27	28	54
1607	HNGDO65	203957 04/26/99	Uni-ZAP XR	1617	996	423	847		705	4214	1	18	19	22
1608	HNGDR39	203957 04/26/99	Uni-ZAP XR	1618	2111	1	2111	53	53	4215	1	17	18	41
1609	HNGDW78	203957 04/26/99	Uni-ZAP XR	1619	473	1	473	206	206	4216	1	19	20	35
1610	HNGEA90	PTA-181 06/07/99	Uni-ZAP XR	1620	1478	1	1478	220	220	4217	1	24	25	71

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1611	HNGEC17	203957 04/26/99	Uni-ZAP XR	1621	601	1	601	220	220	4218	1			4
1612	HNGEE06	203957 04/26/99	Uni-ZAP XR	1622	1120	1	1120	29	29	4219	1	29	30	35
1613	HNGEF70	203957 04/26/99	Uni-ZAP XR	1623	755	1	755	36	36	4220	1	21	22	31
1614	HNGEF72	PTA-792 09/27/99	Uni-ZAP XR	1624	2388	1	2388	238	238	4221	1	21	22	23
1615	HNGEI64	203957 04/26/99	Uni-ZAP XR	1625	1245	1	1245	56	56	4222	1	22	23	29
1616	HNGEJ33	203957 04/26/99	Uni-ZAP XR	1626	431	1	431	241	241	4223	1			20
1617	HNGEK64	203957 04/26/99	Uni-ZAP XR	1627	1011	1	1011	144	144	4224	1	25	26	35
1618	HNGEN32	203957 04/26/99	Uni-ZAP XR	1628	569	1	569	57	57	4225	1	21	22	38
1619	HNGER85	203957 04/26/99	Uni-ZAP XR	1629	1223	1	1223	178	178	4226	1	17	18	68
1620	HNGES90	PTA-181 06/07/99	Uni-ZAP XR	1630	1626	1	1626	53	53	4227	1	22	23	32

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1621	HNGET33	203957 04/26/99	Uni-ZAP XR	1631	1347	1	1347	225	225	4228	1	28	29	54
1622	HNGEX18	203957 04/26/99	Uni-ZAP XR	1632	741	1	741	389	389	4229	1			6
1623	HNGEY45	203957 04/26/99	Uni-ZAP XR	1633	962	1	962	231	231	4230	1			9
1624	HNGEZ02	203957 04/26/99	Uni-ZAP XR	1634	943	115	943	298	298	4231	1	17	18	25
1625	HNGEZ90	203957 04/26/99	Uni-ZAP XR	1635	1120	306	1120	466	466	4232	1			23
1626	HNGFA25	203957 04/26/99	Uni-ZAP XR	1636	402	1	402		211	4233	1	13	14	64
1627	HNGFB05	203957 04/26/99	Uni-ZAP XR	1637	214	1	214	110	110	4234	1			5
1628	HNGFD30	203957 04/26/99	Uni-ZAP XR	1638	570	1	570	14	14	4235	1	20	21	32
1629	HNGFD31	203957 04/26/99	Uni-ZAP XR	1639	1811	1	1811	185	185	4236	1	19	20	36
1630	HNGFD61	203957 04/26/99	Uni-ZAP XR	1640	462	1	462	194	194	4237	1			18
1631	HNGFG04	203957 04/26/99	Uni-ZAP XR	1641	534	1	534		250	4238	1	23	24	57

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1632	HNGFG74	203957 04/26/99	Uni-ZAP XR	1642	1011	1	1011		189	4239	1	21	22	43
1633	HNGFH32	203957 04/26/99	Uni-ZAP XR	1643	1665	1	1665	963	963	4240	1	20	21	56
1634	HNGFH83	203957 04/26/99	Uni-ZAP XR	1644	963	693	963		739	4241	1			6
1635	HNGFI21	203957 04/26/99	Uni-ZAP XR	1645	1573	1	1573		34	4242	1	6	7	49
1636	HNGFM31	203957 04/26/99	Uni-ZAP XR	1646	1361	1	1361	220	220	4243	1	41	42	66
1637	HNGFN77	203918 04/08/99	Uni-ZAP XR	1647	1043	1	1043	195	195	4244	1	21	22	30
1638	HNGFQ18	203957 04/26/99	Uni-ZAP XR	1648	1113	1	1113	39	39	4245	1	39	40	67
1639	HNGFR54	203957 04/26/99	Uni-ZAP XR	1649	495	1	495		73	4246	1	36	37	52
1640	HNGFT70	203957 04/26/99	Uni-ZAP XR	1650	1099	1	1099	102	102	4247	1	17	18	22
1641	HNGFU70	203957 04/26/99	Uni-ZAP XR	1651	670	1	670	24	24	4248	1	27	28	33

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1642	HNGFV39	PTA-181 06/07/99	Uni-ZAP XR	1652	1360	1	1360		262	4249	1	8	9	9
1643	HNGGF13	203957 04/26/99	Uni-ZAP XR	1653	840	1	840	83	83	4250	1	23	24	159
1644	HNGGK63	203957 04/26/99	Uni-ZAP XR	1654	1590	2	1590	225	225	4251	1			23
1645	HNGGK65	203979 04/29/99	Uni-ZAP XR	1655	177	1	177	38	38	4252	1	25	26	38
1646	HNGGL11	203957 04/26/99	Uni-ZAP XR	1656	1014	197	790	392	392	4253	1	27	28	53
1647	HNGGO05	203918 04/08/99	Uni-ZAP XR	1657	1270	1	1270	43	43	4254	1	18	19	21
1648	HNGGS92	PTA-181 06/07/99	Uni-ZAP XR	1658	1100	1	1100	107	107	4255	1	19	20	37
1649	HNGGT10	PTA-181 06/07/99	Uni-ZAP XR	1659	1473	1	1473		1	4256	1	1	2	160
1650	HNGGT74	203957 04/26/99	Uni-ZAP XR	1660	1291	1	1291	153	153	4257	1			14
1651	HNGHB89	203957 04/26/99	Uni-ZAP XR	1661	582	1	582		160	4258	1			1

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1652	HNGHD07	203957 04/26/99	Uni-ZAP XR	1662	1219	1	1219	248	248	4259	1	29	30	36
1653	HNGHK37	203957 04/26/99	Uni-ZAP XR	1663	1543	1	1543	234	234	4260	1			12
1654	HNGHM47	203957 04/26/99	Uni-ZAP XR	1664	817	1	817	18	18	4261	1	28	29	41
1655	HNGHT01	203957 04/26/99	Uni-ZAP XR	1665	829	1	829	54	54	4262	1	19	20	31
1656	HNGHT86	PTA-795 09/27/99	Uni-ZAP XR	1666	783	1	783	221	221	4263	1	20	21	187
1657	HNGIH40	203957 04/26/99	Uni-ZAP XR	1667	578	1	578	100	100	4264	1	45	46	85
1658	HNGIK07	203957 04/26/99	Uni-ZAP XR	1668	1142	1	1142	227	227	4265	1			19
1659	HNGIM40	203957 04/26/99	Uni-ZAP XR	1669	2478	1	2478	49	49	4266	1	16	17	33
1660	HNGIM83	203957 04/26/99	Uni-ZAP XR	1670	1092	1	1092	69	69	4267	1	30	31	91
1661	HNGIO93	PTA-795 09/27/99	Uni-ZAP XR	1671	846	142	846	151	151	4268	1	25	26	148

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1662	HNGIS27	203957 04/26/99	Uni-ZAP XR	1672	630	1	630	213	213	4269	1	34	35	53
1663	HNGIU16	203957 04/26/99	Uni-ZAP XR	1673	2521	1	2521	14	14	4270	1	25	26	28
1664	HNGIX91	203957 04/26/99	Uni-ZAP XR	1674	1475	1	1475	155	155	4271	1	26	27	31
1665	HNGIA68	203957 04/26/99	Uni-ZAP XR	1675	1784	1	1784	23	23	4272	1	17	18	30
1666	HNGJB57	203918 04/08/99	Uni-ZAP XR	1676	1743	1	1743	101	101	4273	1	22	23	32
1667	HNGJE86	203918 04/08/99	Uni-ZAP XR	1677	1201	1	1201	229	229	4274	1	19	20	36
1668	HNGJH26	203918 04/08/99	Uni-ZAP XR	1678	1815	1	1815	129	129	4275	1	33	34	34
1669	HNGJJ61	203918 04/08/99	Uni-ZAP XR	1679	925	1	925	116	116	4276	1	19	20	30
1670	HNGJL07	203918 04/08/99	Uni-ZAP XR	1680	921	1	921	147	147	4277	1	30	31	62
1671	HNGJS66	203918 04/08/99	Uni-ZAP XR	1681	979	1	979		49	4278	1	13	14	37
1672	HNGJU60	203918 04/08/99	Uni-ZAP XR	1682	548	1	548	251	251	4279	1	26	27	55

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1673	HNGKB09	203959 04/26/99	Uni-ZAP XR	1683	975	1	975	313	313	4280	1	24	25	27
1674	HNGKW35	PTA-795 09/27/99	Uni-ZAP XR	1684	481	1	481	86	86	4281	1	25	26	132
1675	HNGKY94	203959 04/26/99	Uni-ZAP XR	1685	825	1	825		290	4282	1	15	16	51
1676	HNGLD28	203959 04/26/99	Uni-ZAP XR	1686	455	1	455	403	403	4283	1			17
1677	HNGOY36	203959 04/26/99	Uni-ZAP XR	1687	811	1	811	299	299	4284	1	18	19	54
1678	HNHAB38	203918 04/08/99	Uni-ZAP XR	1688	636	1	636	69	69	4285	1	21	22	34
1679	HNHAC43	203918 04/08/99	Uni-ZAP XR	1689	1132	1	1132	72	72	4286	1	29	30	34
1680	HNHAD34	203918 04/08/99	Uni-ZAP XR	1690	1062	1	1062	54	54	4287	1			27
1681	HNHAG83	203918 04/08/99	Uni-ZAP XR	1691	675	1	675	157	157	4288	1	24	25	41
1682	HNHAH06	203918 04/08/99	Uni-ZAP XR	1692	835	1	835	344	344	4289	1			1

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1683	HNHAJ65	203918 04/08/99	Uni-ZAP XR	1693	598	1	598	151	151	4290	1			7
1684	HNHAL61	203959 04/26/99	Uni-ZAP XR	1694	1445	1	1445	162	162	4291	1	20	21	37
1685	HNHAP58	203918 04/08/99	Uni-ZAP XR	1695	888	1	888		705	4292	1	4	5	5
1686	HNHAW34	203959 04/26/99	Uni-ZAP XR	1696	642	1	642	214	214	4293	1			12
1687	HNHAW35	203959 04/26/99	Uni-ZAP XR	1697	826	1	826	144	144	4294	1	18	19	30
1688	HNHAY26	203918 04/08/99	Uni-ZAP XR	1698	2099	1	2099		777	4295	1	23	24	36
1689	HNHAY86	PTA-181 06/07/99	Uni-ZAP XR	1699	953	1	953	99	99	4296	1			4
1690	HNHAZ20	203918 04/08/99	Uni-ZAP XR	1700	1559	1	1559	243	243	4297	1	16	17	37
1691	HNHBE21	203959 04/26/99	Uni-ZAP XR	1701	608	1	608		395	4298	1	6	7	44
1692	HNHBE38	203918 04/08/99	Uni-ZAP XR	1702	1157	1	1157		214	4299	1	27	28	152

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1693	HNHBG18	203959 04/26/99	Uni-ZAP XR	1703	742	1	742		657	4300	1			2
1694	HNHBI65	203918 04/08/99	Uni-ZAP XR	1704	303	1	303	161	161	4301	1	19	20	47
1695	HNHBM16	203918 04/08/99	Uni-ZAP XR	1705	1162	1	1162	374	374	4302	1	23	24	75
1696	HNHCH78	203959 04/26/99	Uni-ZAP XR	1706	759	1	759		293	4303	1	8	9	22
1697	HNHCP14	203918 04/08/99	Uni-ZAP XR	1707	933	1	933		55	4304	1	31	32	50
1698	HNHCQ44	203959 04/26/99	Uni-ZAP XR	1708	655	1	655	183	183	4305	1	27	28	30
1699	HNHCT22	203959 04/26/99	Uni-ZAP XR	1709	366	1	366	226	226	4306	1			12
1700	HNHCT47	203959 04/26/99	Uni-ZAP XR	1710	621	12	621	73	73	4307	1	20	21	39
1701	HNHCV48	203959 04/26/99	Uni-ZAP XR	1711	1611	1	1611	115	115	4308	1	26	27	38
1702	HNHCZ54	203918 04/08/99	Uni-ZAP XR	1712	1267	1	1267	32	32	4309	1	24	25	31
1703	HNHDC52	203959 04/26/99	Uni-ZAP XR	1713	1341	1	1341	207	207	4310	1	29	30	30

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1704	HNHDD95	203959 04/26/99	Uni-ZAP XR	1714	372	1	372	140	140	4311	1			14
1705	HNHDE58	203918 04/08/99	Uni-ZAP XR	1715	745	1	745	272	272	4312	1	19	20	104
1706	HNHDI17	203959 04/26/99	Uni-ZAP XR	1716	1203	1	1203		1175	4313	1			9
1707	HNHDL37	203918 04/08/99	Uni-ZAP XR	1717	722	1	722	94	94	4314	1	15	16	30
1708	HNHDM21	203918 04/08/99	Uni-ZAP XR	1718	252	1	252	19	19	4315	1	19	20	59
1709	HNHDR57	203918 04/08/99	Uni-ZAP XR	1719	1195	1	1195	117	117	4316	1	25	26	32
1710	HNHDR96	203918 04/08/99	Uni-ZAP XR	1720	1347	1	1347	291	291	4317	1	23	24	34
1711	HNHDIU62	203918 04/08/99	Uni-ZAP XR	1721	794	1	794	311	311	4318	1			15
1712	HNHDW34	203918 04/08/99	Uni-ZAP XR	1722	1184	1	1184	332	332	4319	1	30	31	33
1713	HNHDX28	203918 04/08/99	Uni-ZAP XR	1723	450	1	450	170	170	4320	1	31	32	50
1714	HNHDZ06	203918 04/08/99	Uni-ZAP XR	1724	1375	1	1375	282	282	4321	1	15	16	22

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1715	HNHDZ42	203918 04/08/99	Uni-ZAP XR	1725	328	1	328	282	282	4322	1			1
1716	HNHEF37	203918 04/08/99	Uni-ZAP XR	1726	649	1	649		180	4323	1	10	11	16
1717	HNHEF49	203918 04/08/99	Uni-ZAP XR	1727	1521	1	1521	70	70	4324	1			20
1718	HNHEF70	203918 04/08/99	Uni-ZAP XR	1728	653	1	653	7	7	4325	1	17	18	34
1719	HNHEG30	203918 04/08/99	Uni-ZAP XR	1729	687	1	687	219	219	4326	1	27	28	50
1720	HNHEH38	203918 04/08/99	Uni-ZAP XR	1730	548	1	548	267	267	4327	1	32	33	34
1721	HNHEL22	203918 04/08/99	Uni-ZAP XR	1731	872	1	872	88	88	4328	1	17	18	39
1722	HNHEN70	PTA-181 06/07/99	Uni-ZAP XR	1732	1782	1	1782	67	67	4329	1	34	35	181
1723	HNHEP21	203918 04/08/99	Uni-ZAP XR	1733	702	1	702	175	175	4330	1	19	20	31
1724	HNHEP41	203918 04/08/99	Uni-ZAP XR	1734	917	1	917	184	184	4331	1	20	21	30

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1725	HNHES33	203979 04/29/99	Uni-ZAP XR	1735	1260	1	1260	61	61	4332	1	20	21	39
1726	HNHET16	203918 04/08/99	Uni-ZAP XR	1736	859	1	859	208	208	4333	1	19	20	26
1727	HNHEY29	203918 04/08/99	Uni-ZAP XR	1737	1516	1	1516	131	131	4334	1	23	24	78
1728	HNHEZ76	203918 04/08/99	Uni-ZAP XR	1738	508	1	508	52	52	4335	1			6
1729	HNHFF60	203918 04/08/99	Uni-ZAP XR	1739	311	1	311	28	28	4336	1	15	16	39
1730	HNHFF81	203918 04/08/99	Uni-ZAP XR	1740	1338	1	1338		307	4337	1	23	24	32
1731	HNHFJ49	203959 04/26/99	Uni-ZAP XR	1741	1736	1	1736	26	26	4338	1	26	27	28
1732	HNHFR42	203918 04/08/99	Uni-ZAP XR	1742	522	1	522	22	22	4339	1	21	22	33
1733	HNHFX25	203918 04/08/99	Uni-ZAP XR	1743	591	1	591	244	244	4340	1	22	23	38
1734	HNHGD95	203918 04/08/99	Uni-ZAP XR	1744	610	1	610	69	69	4341	1	20	21	39
1735	HNHGR82	203918 04/08/99	Uni-ZAP XR	1745	695	1	695	287	287	4342	1	29	30	62

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1736	HNHGS62	203918 04/08/99	Uni-ZAP XR	1746	568	1	568	195	195	4343	1	16	17	33
1737	HNHGY77	203918 04/08/99	Uni-ZAP XR	1747	468	1	468	298	298	4344	1	25	26	29
1738	HNHHA47	203918 04/08/99	Uni-ZAP XR	1748	1138	1	1138	27	27	4345	1			9
1739	HNHHN22	PTA-181 06/07/99	Uni-ZAP XR	1749	898	1	898	104	104	4346	1	24	25	37
1740	HNHHW53	203918 04/08/99	Uni-ZAP XR	1750	764	1	764	142	142	4347	1	11	12	13
1741	HNHIB40	203918 04/08/99	Uni-ZAP XR	1751	417	1	417		273	4348	1			17
1742	HNHKT74	203959 04/26/99	Uni-ZAP XR	1752	817	1	817	127	127	4349	1			10
1743	HNHKV56	203959 04/26/99	Uni-ZAP XR	1753	1653	1	1653	294	294	4350	1	31	32	66
1744	HNHLD80	203959 04/26/99	Uni-ZAP XR	1754	713	1	713	164	164	4351	1	21	22	62
1745	HNHLS76	PTA-181 06/07/99	Uni-ZAP XR	1755	318	1	318	138	138	4352	1	23	24	39

Gene No.	cDNA Clone ID	ATCC Deposit No. Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1746	HNHLZ47	203959 04/26/99	Uni-ZAP XR	1756	1860	1	1860	177	177	4353	1	17	18	34
1747	HNHMP15	203959 04/26/99	Uni-ZAP XR	1757	1120	1	1120	51	51	4354	1	21	22	63
1748	HNHMP62	203959 04/26/99	Uni-ZAP XR	1758	1068	1	1068	220	220	4355	1	21	22	36
1749	HNHMY76	203959 04/26/99	Uni-ZAP XR	1759	1272	1	1272	25	25	4356	1	26	27	55
1750	HNHMYZ01	203959 04/26/99	Uni-ZAP XR	1760	536	1	536	250	250	4357	1	19	20	33
1751	HNHND14	203959 04/26/99	Uni-ZAP XR	1761	393	1	393	255	255	4358	1	17	18	46
1752	HNHND94	203959 04/26/99	Uni-ZAP XR	1762	688	1	688	17	17	4359	1			31
1753	HNHOF09	203959 04/26/99	Uni-ZAP XR	1763	1430	1	1430	539	539	4360	1	21	22	66
1754	HNKAA76	203959 04/26/99	pSport1	1764	1803	1	1803	384	384	4361	1	23	24	47
1755	HNTAF42	203918 04/08/99	pCMVSPORT 3.0	1765	1149	1	1149	82	82	4362	1	21	22	49

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1756	HNTCG32	PTA-795 09/27/99	pCMVSPORT 3.0	1766	2753	1	2753	178	178	4363	1	44	45	358
1757	HNTNY89	PTA-793 09/27/99	pSport1	1767	1247	1	1247	158	158	4364	1	30	31	37
1758	HNTRB25	203918 04/08/99	pSport1	1768	1154	1	1154	162	162	4365	1	41	42	97
1759	HNTRQ40	203959 04/26/99	pSport1	1769	4024	1	4024	132	132	4366	1	16	17	91
1760	HNTSQ23	203959 04/26/99	pSport1	1770	2287	231	2287	1255	1255	4367	1	28	29	38
1761	HOAAH51	PTA-181 06/07/99	Uni-ZAP XR	1771	755	1	755	187	187	4368	1	31	32	58
1762	HOAAI76	203959 04/26/99	Uni-ZAP XR	1772	522	1	515	121	121	4369	1			16
1763	HOAAJ09	203918 04/08/99	Uni-ZAP XR	1773	787	1	787	60	60	4370	1	24	25	37
1764	HOAAL10	203918 04/08/99	Uni-ZAP XR	1774	1241	1	1241	20	20	4371	1	20	21	80
1765	HOAAU13	203918 04/08/99	Uni-ZAP XR	1775	1093	1	1093	182	182	4372	1			26

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1766	HOABC12	203959 04/26/99	Uni-ZAP XR	1776	553	1	553	186	186	4373	1	28	29	29
1767	HOABH36	203959 04/26/99	Uni-ZAP XR	1777	1503	1	1503	181	181	4374	1	28	29	71
1768	HOBNA89	203959 04/26/99	Uni-ZAP XR	1778	605	1	605	15	15	4375	1	12	13	37
1769	HOBNF51	203918 04/08/99	Uni-ZAP XR	1779	1156	1	1156		223	4376	1	43	44	67
1770	HODAH24	203918 04/08/99	Uni-ZAP XR	1780	1357	1	1357	39	39	4377	1	27	28	30
1771	HODAH46	PTA-181 06/07/99	Uni-ZAP XR	1781	739	1	739	201	201	4378	1	24	25	124
1772	HODAV25	203959 04/26/99	Uni-ZAP XR	1782	991	387	991		19	4379	1			6
1773	HODAW64	203959 04/26/99	Uni-ZAP XR	1783	3287	1	828		3184	4380	1	8	9	33
1774	HODAY17	203959 04/26/99	Uni-ZAP XR	1784	2621	1919	2559	2128	2128	4381	1			15
1775	HODBA45	203918 04/08/99	Uni-ZAP XR	1785	745	1	745	179	179	4382	1	16	17	42

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1776	HODBC79	203918 04/08/99	Uni-ZAP XR	1786	931	1	931	179	179	4383	1	23	24	34
1777	HODBD79	203918 04/08/99	Uni-ZAP XR	1787	635	1	635	91	91	4384	1	19	20	92
1778	HODBF12	203918 04/08/99	Uni-ZAP XR	1788	1187	1	1187	68	68	4385	1			3
1779	HODBF86	203918 04/08/99	Uni-ZAP XR	1789	921	1	921	228	228	4386	1			13
1780	HODBF91	203959 04/26/99	Uni-ZAP XR	1790	960	172	960		383	4387	1	12	13	33
1781	HODBW34	PTA-791 09/27/99	Uni-ZAP XR	1791	869	1	869	241	241	4388	1			14
1782	HODBX93	PTA-795 09/27/99	Uni-ZAP XR	1792	799	1	799	169	169	4389	1			5
1783	HODBZ06	203959 04/26/99	Uni-ZAP XR	1793	1804	1	1804	159	159	4390	1			11
1784	HODCA73	203979 04/29/99	Uni-ZAP XR	1794	831	1	831		130	4391	1			10
1785	HODCV86	203959 04/26/99	Uni-ZAP XR	1795	407	1	407	250	250	4392	1	32	33	36

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1786	HODCY44	203959 04/26/99	Uni-ZAP XR	1796	1255	1	1255	111	111	4393	1	19	20	47
1787	HODDB58	203918 04/08/99	Uni-ZAP XR	1797	1768	1	1768	86	86	4394	1			33
1788	HODDG72	203918 04/08/99	Uni-ZAP XR	1798	826	1	826	186	186	4395	1	30	31	57
1789	HODDJ25	203959 04/26/99	Uni-ZAP XR	1799	2243	1441	2038	1540	1540	4396	1			17
1790	HODDN21	203959 04/26/99	Uni-ZAP XR	1800	968	8	968		237	4397	1	25	26	39
1791	HODDO31	203918 04/08/99	Uni-ZAP XR	1801	1532	1	1532	122	122	4398	1	25	26	35
1792	HODDQ06	203959 04/26/99	Uni-ZAP XR	1802	1874	583	1598		834	4399	1	19	20	28
1793	HODEA20	203959 04/26/99	Uni-ZAP XR	1803	1471	1	1452	373	373	4400	1	18	19	19
1794	HODEM38	203959 04/26/99	Uni-ZAP XR	1804	1117	1	1117	527	527	4401	1	22	23	72
1795	HODET37	203959 04/26/99	Uni-ZAP XR	1805	1121	1	1121		389	4402	1	21	22	26
1796	HOEBI94	203917 04/08/99	Uni-ZAP XR	1806	2322	439	2241		558	4403	1	15	16	24

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1797	HOEBJ70	203959 04/26/99	Uni-ZAP XR	1807	1330	1	1330	197	197	4404	1	26	27	44
1798	HOECB33	203959 04/26/99	Uni-ZAP XR	1808	1100	1	1100	302	302	4405	1			23
1799	HOECX21	203979 04/29/99	Uni-ZAP XR	1809	1963	56	1892	75	75	4406	1	33	34	37
1800	HOEDE27	203918 04/08/99	Uni-ZAP XR	1810	960	1	960	403	403	4407	1	18	19	33
1801	HOEEK81	203918 04/08/99	Uni-ZAP XR	1811	1691	450	1690	501	501	4408	1	19	20	30
1802	HOEEZ62	203959 04/26/99	Uni-ZAP XR	1812	385	1	385	258	258	4409	1	14	15	17
1803	HOEFJ26	203979 04/29/99	Uni-ZAP XR	1813	1634	1	1634		695	4410	1			6
1804	HOEFL74	203918 04/08/99	Uni-ZAP XR	1814	889	1	889	142	142	4411	1	20	21	66
1805	HOEFL74	203979 04/29/99	pCMVSPORT 2.0	1815	1578	1	1578	86	86	4412	1	68	69	180
1806	HOEFL74	203918 04/08/99	pCMVSPORT 2.0	1816	2082	1	2082	341	341	4413	1	13	14	41
1807	HOEFL74	203918 04/08/99	pCMVSPORT 2.0	1817	1671	1	1671	129	129	4414	1			34

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1808	HOFMO16	203918 04/08/99	pCMVSPORT 2.0	1818	1142	1	1142	149	149	4415	1	40	41	152
1809	HOFMP62	PTA-181 06/07/99	pCMVSPORT 2.0	1819	900	1	900	103	103	4416	1	17	18	67
1810	HOFMT59	203918 04/08/99	pCMVSPORT 2.0	1820	1326	1	1326	159	159	4417	1	22	23	46
1811	HOFMV22	203918 04/08/99	pCMVSPORT 2.0	1821	621	1	621	170	170	4418	1	15	16	29
1812	HOFND06	203918 04/08/99	pCMVSPORT 2.0	1822	2144	1	2144	272	272	4419	1	15	16	51
1813	HOFNY15	203918 04/08/99	pCMVSPORT 2.0	1823	1187	1	1187		30	4420	1	8	9	114
1814	HOFNY28	203918 04/08/99	pCMVSPORT 2.0	1824	1233	1	1233	365	365	4421	1	26	27	37
1815	HOFOC41	203918 04/08/99	pCMVSPORT 2.0	1825	1197	1	1197	152	152	4422	1	27	28	37
1816	HOGAA41	203918 04/08/99	pCMVSPORT 2.0	1826	5077	1	5077	640	640	4423	1	18	19	206
1817	HOGAB51	203918 04/08/99	pCMVSPORT 2.0	1827	1634	1	1634	242	242	4424	1	24	25	35

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1818	HOGAH40	203959 04/26/99	pCMVSPORT 2.0	1828	1648	1058	1648	1339	1339	4425	1	14	15	25
1819	HOGAP06	203918 04/08/99	pCMVSPORT 2.0	1829	1726	1	1726	225	225	4426	1	23	24	37
1820	HOGAR36	203959 04/26/99	pCMVSPORT 2.0	1830	1175	1	1175	205	205	4427	1	20	21	26
1821	HOGAR71	203959 04/26/99	pCMVSPORT 2.0	1831	1014	1	1014	87	87	4428	1	24	25	211
1822	HOGCC26	203959 04/26/99	pCMVSPORT 2.0	1832	1827	566	1816	713	713	4429	1			19
1823	HOGCD78	203918 04/08/99	pCMVSPORT 2.0	1833	734	1	734	151	151	4430	1	28	29	63
1824	HOGCK03	203979 04/29/99	pCMVSPORT 2.0	1834	1392	1	1392		386	4431	1	8	9	27
1825	HOGCL01	203959 04/26/99	pCMVSPORT 2.0	1835	959	1	930	167	167	4432	1	20	21	216
1826	HOHBB36	203979 04/29/99	pCMVSPORT 2.0	1836	2263	1	2263	283	283	4433	1			14
1827	HOHBC57	203959 04/26/99	pCMVSPORT 2.0	1837	5083	699	5083	891	891	4434	1	28	29	51

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1828	HOHBO66	PTA-181 06/07/99	pCMVSPORT 2.0	1838	1790	1	1790	338	338	4435	1			21
1829	HOHBZ10	203959 04/26/99	pCMVSPORT 2.0	1839	829	1	829	150	150	4436	1	21	22	52
1830	HOHCH71	203959 04/26/99	pCMVSPORT 2.0	1840	2574	166	2574	333	333	4437	1	24	25	38
1831	HOHEB48	203959 04/26/99	pCMVSPORT 2.0	1841	1579	1	1579	126	126	4438	1	22	23	23
1832	HONAH67	203918 04/08/99	pBluescript SK-	1842	2202	1	2202	18	18	4439	1	20	21	33
1833	HOOAC84	203918 04/08/99	pBluescript	1843	1556	1	1556	84	84	4440	1	27	28	31
1834	HOPBP13	203918 04/08/99	Uni-ZAP XR	1844	2185	1	2185		295	4441	1	7	8	43
1835	HOQBG21	203959 04/26/99	Uni-ZAP XR	1845	1649	35	1643	189	189	4442	1	30	31	76
1836	HORBI80	PTA-791 09/27/99	Uni-ZAP XR	1846	2665	1	2665	58	58	4443	1	22	23	44
1837	HORBL77	PTA-181 06/07/99	Uni-ZAP XR	1847	1258	12	1233		25	4444	1	4	5	64

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1838	HOSBX14	203918 04/08/99	Uni-ZAP XR	1848	1027	1	1027	173	173	4445	1	25	26	59
1839	HOSCZ41	203959 04/26/99	Uni-ZAP XR	1849	1248	127	1246	188	188	4446	1	18	19	50
1840	HOSEM81	203959 04/26/99	Uni-ZAP XR	1850	1019	1	1019		227	4447	1	9	10	66
1841	HOSEO83	203979 04/29/99	Uni-ZAP XR	1851	1309	1	1309	50	50	4448	1	45	46	67
1842	HOSFR35	203918 04/08/99	Uni-ZAP XR	1852	2255	1	2255	81	81	4449	1	50	51	85
1843	HOUAZ32	203918 04/08/99	Uni-ZAP XR	1853	1659	1	1659	214	214	4450	1			15
1844	HOUBC29	PTA-791 09/27/99	Uni-ZAP XR	1854	2845	1	2845		134	4451	1			8
1845	HOUBG39	203918 04/08/99	Uni-ZAP XR	1855	1647	1	1647	62	62	4452	1	22	23	26
1846	HOUCD12	203918 04/08/99	Uni-ZAP XR	1856	640	1	640		514	4453	1	12	13	42
1847	HOUDB17	203959 04/26/99	Uni-ZAP XR	1857	706	1	706		158	4454	1	10	11	23

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT 3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1848	HOUDX40	203959 04/26/99	Uni-ZAP XR	1858	1264	1	1152	360	4455	1			12
1849	HOUF84	PTA-181 06/07/99	Uni-ZAP XR	1859	2249	1	2249	83	4456	1	24	25	32
1850	HOUJ43	203959 04/26/99	Uni-ZAP XR	1860	1450	1	1450	157	4457	1			14
1851	HOUGS36	PTA-181 06/07/99	Uni-ZAP XR	1861	1645	1	1645	295	4458	1	15	16	70
1852	HOUHQ36	203959 04/26/99	Uni-ZAP XR	1862	979	1	979	376	4459	1	37	38	53
1853	HOUIG68	203959 04/26/99	Uni-ZAP XR	1863	2952	1423	2569	1509	4460	1	13	14	18
1854	HOUIG92	203959 04/26/99	Uni-ZAP XR	1864	1117	1	1117	343	4461	1	12	13	61
1855	HOVAD93	203918 04/08/99	pSport1	1865	860	1	860	114	4462	1	19	20	28
1856	HOVAE10	203918 04/08/99	pSport1	1866	1086	1	1082	228	4463	1	20	21	26
1857	HOVAE36	203918 04/08/99	pSport1	1867	969	1	969	49	4464	1			12

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1858	HOVAE82	203918 04/08/99	pSport1	1868	1206	1	1206	154	154	4465	1	17	18	37
1859	HOVAJ68	203918 04/08/99	pSport1	1869	1623	1	1623	129	129	4466	1	19	20	28
1860	HOVAW46	PTA-794 09/27/99	pSport1	1870	1370	1	1370	220	220	4467	1			16
1861	HOVBB19	203918 04/08/99	pSport1	1871	751	1	751	379	379	4468	1	29	30	32
1862	HOVBD31	203918 04/08/99	pSport1	1872	2329	1	2258	149	149	4469	1			29
1863	HOVBE81	PTA-181 06/07/99	pSport1	1873	953	1	953	172	172	4470	1	20	21	32
1864	HOVBI16	203918 04/08/99	pSport1	1874	932	1	932	269	269	4471	1	17	18	91
1865	HOVBS68	203918 04/08/99	pSport1	1875	1812	1	1812	20	20	4472	1	33	34	40
1866	HOVCC73	203918 04/08/99	pSport1	1876	594	1	594	126	126	4473	1	39	40	44
1867	HOVCF30	203918 04/08/99	pSport1	1877	909	1	909	169	169	4474	1			21

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1868	HOVCJ71	203959 04/26/99	pSport1	1878	1463	1	1463		147	4475	1	18	19	46
1869	HOVCN53	203918 04/08/99	pSport1	1879	809	1	809	128	128	4476	1	22	23	36
1870	HOVCO53	203918 04/08/99	pSport1	1880	1583	1	1583	65	65	4477	1	45	46	47
1871	HPASF94	203959 04/26/99	Uni-ZAP XR	1881	352	29	352		41	4478	1	15	16	37
1872	HPBCG26	203918 04/08/99	pBluescript SK-	1882	453	1	453	74	74	4479	1	21	22	31
1873	HPBCT11	203959 04/26/99	pBluescript SK-	1883	996	1	996	149	149	4480	1	27	28	38
1874	HPBDE33	PTA-181 06/07/99	pBluescript SK-	1884	2444	1215	2435	257	257	4481	1	20	21	310
1875	HPBDE33	PTA-181 06/07/99	pBluescript SK-	1885	2444	1215	2435	1308	1308	4482	1	18	19	25
1876	HPBDF31	203918 04/08/99	pBluescript SK-	1886	895	1	895	149	149	4483	1	23	24	29
1877	HPCAG17	203959 04/26/99	Uni-ZAP XR	1887	1320	1	1320		214	4484	1	22	23	31

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1878	HPCAG17	203959 04/26/99	Uni-ZAP XR	1888	1227	1	873		81	4485	1	22	23	31
1879	HPCAM02	PTA-791 09/27/99	Uni-ZAP XR	1889	1176	1	1176	265	265	4486	1	26	27	36
1880	HPDDQ17	203918 04/08/99	pBluescript SK-	1890	531	1	531	251	251	4487	1	24	25	31
1881	HPDDQ28	203918 04/08/99	pBluescript SK-	1891	1221	1	1221	166	166	4488	1	23	24	72
1882	HPDDT14	203918 04/08/99	pBluescript SK-	1892	1293	1	1264	173	173	4489	1	26	27	58
1883	HPEAA65	203918 04/08/99	Uni-ZAP XR	1893	908	1	908	25	25	4490	1	23	24	49
1884	HPEAG24	203959 04/26/99	Uni-ZAP XR	1894	546	1	546	207	207	4491	1	21	22	35
1885	HPEBA84	203959 04/26/99	Uni-ZAP XR	1895	1160	250	1160	533	533	4492	1	21	22	36
1886	HPEBF91	203918 04/08/99	Uni-ZAP XR	1896	308	1	308	189	189	4493	1	22	23	34
1887	HPEBI09	203918 04/08/99	Uni-ZAP XR	1897	236	1	236	53	53	4494	1			18

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1888	HPFCJ75	203959 04/26/99	Uni-ZAP XR	1898	2024	1	859		1	4495	1			10
1889	HPFCP75	203918 04/08/99	Uni-ZAP XR	1899	1345	1	1345	78	78	4496	1	26	27	31
1890	HPFDB66	203959 04/26/99	Uni-ZAP XR	1900	1376	741	1376		973	4497	1			9
1891	HPFDD28	203918 04/08/99	Uni-ZAP XR	1901	1485	1	1485	391	391	4498	1			3
1892	HPFDI47	203918 04/08/99	Uni-ZAP XR	1902	486	1	486	174	174	4499	1	18	19	26
1893	HPIAF35	203918 04/08/99	Uni-ZAP XR	1903	2401	1	2401	140	140	4500	1			6
1894	HPIAK27	PTA-181 06/07/99	Uni-ZAP XR	1904	2970	785	2966	1088	1088	4501	1	16	17	25
1895	HPIAL55	203979 04/29/99	Uni-ZAP XR	1905	2184	1	2184		286	4502	1	16	17	67
1896	HPIAT18	PTA-791 09/27/99	Uni-ZAP XR	1906	3852	1	3852	74	74	4503	1	25	26	38
1897	HPIAZ52	203918 04/08/99	Uni-ZAP XR	1907	2604	2	2604	149	149	4504	1	29	30	34

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1898	HPIBA07	PTA-793 09/27/99	Uni-ZAP XR	1908	3033	1	3033	23	23	4505	1	37	38	61
1899	HPIBA24	203959 04/26/99	Uni-ZAP XR	1909	2003	1	2002	49	49	4506	1	22	23	24
1900	HPIBI40	203918 04/08/99	Uni-ZAP XR	1910	1417	1	1417	184	184	4507	1	35	36	87
1901	HPIBT19	203918 04/08/99	Uni-ZAP XR	1911	1146	1	1146	340	340	4508	1	21	22	31
1902	HPJAA82	203918 04/08/99	Uni-ZAP XR	1912	1465	1	1465	158	158	4509	1			12
1903	HPJAB75	203979 04/29/99	Uni-ZAP XR	1913	1817	1	1792	153	153	4510	1			28
1904	HPJAN76	203959 04/26/99	Uni-ZAP XR	1914	1953	70	1953	275	275	4511	1	17	18	18
1905	HPJAN76	203959 04/26/99	Uni-ZAP XR	1915	1956	70	1953	275	275	4512	1	17	18	18
1906	HPJAU94	203918 04/08/99	Uni-ZAP XR	1916	4161	1	4161	55	55	4513	1	22	23	23
1907	HPJAW78	203918 04/08/99	Uni-ZAP XR	1917	1211	1	1211	100	100	4514	1	26	27	67

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1908	HPJBS16	203918 04/08/99	Uni-ZAP XR	1918	1703	1	1703	31	31	4515	1	20	21	112
1909	HPJBU04	203918 04/08/99	Uni-ZAP XR	1919	3121	1	3121		288	4516	1	17	18	34
1910	HPJCN83	203918 04/08/99	Uni-ZAP XR	1920	1501	1	1501	195	195	4517	1	17	18	36
1911	HPJCP75	PTA-793 09/27/99	Uni-ZAP XR	1921	2203	1	2203	34	34	4518	1	22	23	34
1912	HPJCV35	203918 04/08/99	Uni-ZAP XR	1922	2971	1	2971	527	527	4519	1	20	21	45
1913	HPJCX13	PTA-181 06/07/99	Uni-ZAP XR	1923	5065	1643	5065	1830	1830	4520	1	15	16	65
1914	HPLAW13	203957 04/26/99	Uni-ZAP XR	1924	1592	1	1561	199	199	4521	1	28	29	37
1915	HPMAI31	203918 04/08/99	Uni-ZAP XR	1925	270	1	270	142	142	4522	1	19	20	43
1916	HPMBI91	203918 04/08/99	Uni-ZAP XR	1926	1045	1	1045	216	216	4523	1			11
1917	HPMBT05	203918 04/08/99	Uni-ZAP XR	1927	838	1	838	147	147	4524	1	15	16	32

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1918	HPMBW95	203959 04/26/99	Uni-ZAP XR	1928	1367	418	1355	523	523	4525	1			3
1919	HPMCW10	203959 04/26/99	Uni-ZAP XR	1929	915	1	915		169	4526	1	19	20	25
1920	HPMCZ18	203959 04/26/99	Uni-ZAP XR	1930	2509	686	2509	772	772	4527	1			10
1921	HPMDA80	203959 04/26/99	Uni-ZAP XR	1931	921	1	921	166	166	4528	1	16	17	49
1922	HPMDD27	203959 04/26/99	Uni-ZAP XR	1932	1723	230	1720	327	327	4529	1	43	44	54
1923	HPMDF45	203918 04/08/99	Uni-ZAP XR	1933	2310	1	2310	58	58	4530	1	22	23	39
1924	HPMDP57	203918 04/08/99	Uni-ZAP XR	1934	1541	1	1541		233	4531	1	17	18	31
1925	HPMEG72	203959 04/26/99	Uni-ZAP XR	1935	2074	91	1727	172	172	4532	1	19	20	31
1926	HPMFM70	203918 04/08/99	Uni-ZAP XR	1936	2288	649	2288	749	749	4533	1	30	31	38
1927	HPMFP48	203918 04/08/99	Uni-ZAP XR	1937	1156	1	1156	166	166	4534	1	25	26	40
1928	HPMFW01	203979 04/29/99	Uni-ZAP XR	1938	2488	1	2215	95	95	4535	1			18

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1929	HPMGM06	203918 04/08/99	Uni-ZAP XR	1939	1640	1	1640	67	67	4536	1	29	30	88
1930	HPMGW43	203959 04/26/99	Uni-ZAP XR	1940	1996	1	1831		12	4537	1			12
1931	HPMGY89	203917 04/08/99	Uni-ZAP XR	1941	2067	56	2065	110	110	4538	1	20	21	55
1932	HPMKB09	PTA-1838 05/09/00	Uni-ZAP XR	1942	2226	1229	2217	1351	1351	4539	1	16	17	80
1933	HPMSH26	203979 04/29/99	pBluescript	1943	1758	47	1697	322	322	4540	1	16	17	24
1934	HPMSH96	203918 04/08/99	pBluescript	1944	1575	1	1575	57	57	4541	1	25	26	31
1935	HPQAJ25	PTA-181 06/07/99	Lambda ZAP II	1945	549	1	549	85	85	4542	1	35	36	39
1936	HPQAJ27	203918 04/08/99	Lambda ZAP II	1946	1397	3	1397		233	4543	1	13	14	40
1937	HPQAN50	203959 04/26/99	Lambda ZAP II	1947	1285	1	1228	164	164	4544	1	20	21	44
1938	HPQAO80	203959 04/26/99	Lambda ZAP II	1948	985	10	983	284	284	4545	1			2

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1939	HPQAW27	203918 04/08/99	Lambda ZAP II	1949	961	1	911	118	118	4546	1	19	20	31
1940	HPQBC90	203918 04/08/99	Lambda ZAP II	1950	1017	1	1017	21	21	4547	1	20	21	31
1941	HPQBJ48	203959 04/26/99	Lambda ZAP II	1951	822	1	822	251	251	4548	1	19	20	36
1942	HPQBJ48	203959 04/26/99	Lambda ZAP II	1952	822	1	822	251	251	4549	1	19	20	36
1943	HPQBL67	203918 04/08/99	Lambda ZAP II	1953	1087	1	1087	234	234	4550	1			4
1944	HPQBT17	203959 04/26/99	Lambda ZAP II	1954	1220	3	1208	236	236	4551	1			12
1945	HPQCF94	203959 04/26/99	Lambda ZAP II	1955	951	8	944	212	212	4552	1	22	23	28
1946	HPQCI62	203918 04/08/99	Lambda ZAP II	1956	1071	1	1071	237	237	4553	1	30	31	74
1947	HPQRS74	203959 04/26/99	Lambda ZAP II	1957	563	1	563	146	146	4554	1	34	35	36
1948	HPRAD30	203959 04/26/99	Uni-ZAP XR	1958	2930	1	2930	99	99	4555	1	48	49	73
1949	HPRCC91	203918 04/08/99	Uni-ZAP XR	1959	932	1	932		653	4556	1			9

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1950	HPRCF40	203959 04/26/99	Uni-ZAP XR	1960	2904	2001	2882	2217	2217	4557	1	28	29	34
1951	HPRCF50	203918 04/08/99	Uni-ZAP XR	1961	1959	1	1959		151	4558	1	31	32	51
1952	HPRCL58	203918 04/08/99	Uni-ZAP XR	1962	1139	1	1139	171	171	4559	1			30
1953	HPRCM72	203959 04/26/99	Uni-ZAP XR	1963	2455	26	1572		281	4560	1	24	25	108
1954	HPRCS59	203918 04/08/99	Uni-ZAP XR	1964	772	1	772	142	142	4561	1			10
1955	HPRCT73	203918 04/08/99	Uni-ZAP XR	1965	1481	1	1481		135	4562	1			11
1956	HPRTH56	PTA-181 06/07/99	pBluescript	1966	1377	1	1377	25	25	4563	1			26
1957	HPTRE80	PTA-792 09/27/99	pBluescript	1967	1173	1	1173		102	4564	1	21	22	187
1958	HPTRI42	203959 04/26/99	pBluescript	1968	1098	1	1098		266	4565	1	18	19	71
1959	HPTRL95	203959 04/26/99	pBluescript	1969	692	1	692	149	149	4566	1	32	33	37

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1960	HPTRQ52	203959 04/26/99	pBluescript	1970	658	1	658	224	224	4567	1	13	14	33
1961	HPTTH35	203918 04/08/99	Uni-ZAP XR	1971	1134	1	1134	80	80	4568	1			20
1962	HPTTI65	203918 04/08/99	Uni-ZAP XR	1972	1175	1	1175	210	210	4569	1	13	14	38
1963	HPTTT62	203918 04/08/99	Uni-ZAP XR	1973	553	1	553	222	222	4570	1	26	27	63
1964	HPTVH24	203959 04/26/99	pBluescript	1974	1463	576	1453	766	766	4571	1	19	20	35
1965	HPTVH59	203959 04/26/99	pBluescript	1975	475	1	475		144	4572	1	20	21	44
1966	HPTVI04	PTA-795 09/27/99	pBluescript	1976	636	19	618		273	4573	1	20	21	65
1967	HPTVI96	203959 04/26/99	pBluescript	1977	520	1	520	271	271	4574	1			6
1968	HPVAA15	203959 04/26/99	Uni-ZAP XR	1978	1506	40	1068	74	74	4575	1	21	22	24
1969	HPVAB20	203918 04/08/99	Uni-ZAP XR	1979	906	1	906	48	48	4576	1	16	17	36

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1970	HPVAB63	203918 04/08/99	Uni-ZAP XR	1980	774	1	774	311	311	4577	1			13
1971	HPVAF86	203918 04/08/99	Uni-ZAP XR	1981	1236	1	1236	91	91	4578	1	25	26	39
1972	HPWAH55	PTA-181 06/07/99	Uni-ZAP XR	1982	2071	1	2071	144	144	4579	1	22	23	39
1973	HPWAO89	203918 04/08/99	Uni-ZAP XR	1983	1467	1	1467		46	4580	1	18	19	41
1974	HPWAS27	203918 04/08/99	Uni-ZAP XR	1984	1201	1	1201		305	4581	1	14	15	34
1975	HPWAT86	203959 04/26/99	Uni-ZAP XR	1985	617	1	617	83	83	4582	1	29	30	59
1976	HPWAV82	203918 04/08/99	Uni-ZAP XR	1986	637	262	637	401	401	4583	1			12
1977	HPWBA36	203959 04/26/99	Uni-ZAP XR	1987	1610	1	1609	83	83	4584	1	23	24	24
1978	HPWTF23	203979 04/29/99	Uni-ZAP XR	1988	2008	94	1994	283	283	4585	1	29	30	130
1979	HPWTF23	203979 04/29/99	Uni-ZAP XR	1989	2008	94	1994	283	283	4586	1	29	30	130

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1980	HPWTF53	203979 04/29/99	Uni-ZAP XR	1990	2190	227	2190		484	4587	1	14	15	97
1981	HPXAB56	203918 04/08/99	pBluescript	1991	240	1	240	73	73	4588	1	16	17	30
1982	HPZAB75	203918 04/08/99	pBluescript	1992	686	1	686	42	42	4589	1	22	23	36
1983	HRAAB26	203918 04/08/99	pCMVSPORT 3.0	1993	1961	1	1961	8	8	4590	1	18	19	25
1984	HRAAC36	203918 04/08/99	pCMVSPORT 3.0	1994	2647	1	2647		274	4591	1	17	18	59
1985	HRAAF59	203979 04/29/99	pCMVSPORT 3.0	1995	1520	1	1520	103	103	4592	1	33	34	49
1986	HRAAG89	203918 04/08/99	pCMVSPORT 3.0	1996	594	1	594	54	54	4593	1	28	29	31
1987	HRAAO40	203918 04/08/99	pCMVSPORT 3.0	1997	933	1	933	95	95	4594	1	33	34	36
1988	HRAAZ12	203959 04/26/99	pCMVSPORT 3.0	1998	4561	3116	4561	3201	3201	4595	1	21	22	39
1989	HRABA19	203918 04/08/99	pCMVSPORT 3.0	1999	1142	1	1142	175	175	4596	1			4
1990	HRABP28	203959 04/26/99	pCMVSPORT 3.0	2000	1317	1	1317	224	224	4597	1	23	24	35

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
1991	HRABU56	203918 04/08/99	pCMVSPORT 3.0	2001	420	1	420	268	268	4598	1	29	30	51
1992	HRABZ80	203918 04/08/99	pCMVSPORT 3.0	2002	1506	1	1506	207	207	4599	1	17	18	48
1993	HRACB01	203918 04/08/99	pCMVSPORT 3.0	2003	1424	1	1424	150	150	4600	1			21
1994	HRACI39	203918 04/08/99	pCMVSPORT 3.0	2004	1348	1	1348	124	124	4601	1	17	18	30
1995	HRADU15	203959 04/26/99	pCMVSPORT 3.0	2005	849	1	849	304	304	4602	1	34	35	46
1996	HRDAH04	203918 04/08/99	Uni-ZAP XR	2006	1519	1	1519		147	4603	1	16	17	24
1997	HRDBA20	203918 04/08/99	Uni-ZAP XR	2007	1292	1	1292		87	4604	1	17	18	45
1998	HRDBD32	203918 04/08/99	Uni-ZAP XR	2008	1292	1	1292		86	4605	1	17	18	45
1999	HRDBL01	203917 04/08/99	Uni-ZAP XR	2009	935	60	935	248	248	4606	1	18	19	38
2000	HRDDM85	203959 04/26/99	Uni-ZAP XR	2010	2180	1	2180	281	281	4607	1			17
2001	HRDDS22	203959 04/26/99	Uni-ZAP XR	2011	948	1	948	235	235	4608	1	18	19	44

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2002	HRDEJ86	203959 04/26/99	Uni-ZAP XR	2012	844	1	844		203	4609	1	14	15	27
2003	HRDEQ34	203959 04/26/99	Uni-ZAP XR	2013	608	1	608	67	67	4610	1	15	16	19
2004	HRDFE30	203959 04/26/99	Uni-ZAP XR	2014	1595	821	1595	1193	1193	4611	1	29	30	41
2005	HRDFT83	203959 04/26/99	Uni-ZAP XR	2015	953	8	953	51	51	4612	1	27	28	34
2006	HRGCA01	203918 04/08/99	Uni-ZAP XR	2016	1320	1	1320	75	75	4613	1	15	16	26
2007	HRGCA06	PTA-181 06/07/99	Uni-ZAP XR	2017	617	1	617	74	74	4614	1	15	16	137
2008	HRGSE38	PTA-795 09/27/99	pBluescript	2018	536	1	536	50	50	4615	1	16	17	106
2009	HRLAT43	203959 04/26/99	ZAP Express	2019	451	1	451	158	158	4616	1			21
2010	HRLME03	203918 04/08/99	ZAP Express	2020	272	1	272	162	162	4617	1	21	22	37
2011	HROAN20	203918 04/08/99	Uni-ZAP XR	2021	1346	1	1346	254	254	4618	1	11	12	25

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2012	HROAP64	203959 04/26/99	Uni-ZAP XR	2022	638	1	638	181	181	4619	1	20	21	35
2013	HROAS35	203959 04/26/99	Uni-ZAP XR	2023	923	1	923	152	152	4620	1			31
2014	HROAY16	203959 04/26/99	Uni-ZAP XR	2024	1957	1	1957	242	242	4621	1	26	27	31
2015	HROBJ10	203959 04/26/99	Uni-ZAP XR	2025	1870	1	516	108	108	4622	1	19	20	57
2016	HROBW46	203959 04/26/99	Uni-ZAP XR	2026	1157	1	1157	395	395	4623	1	28	29	44
2017	HRODG86	203959 04/26/99	Uni-ZAP XR	2027	1084	1	1084		320	4624	1	12	13	14
2018	HRSA126	203918 04/08/99	ZAP Express	2028	175	1	175	82	82	4625	1	18	19	31
2019	HRTAE88	203918 04/08/99	pBluescript SK-	2029	2845	1	2845	266	266	4626	1	18	19	31
2020	HRTAP63	203979 04/29/99	pBluescript SK-	2030	2576	891	2576	959	959	4627	1	28	29	42
2021	HRTAR24	203918 04/08/99	pBluescript SK-	2031	466	1	466		220	4628	1	24	25	57
2022	HSAAN03	203918 04/08/99	pBluescript SK-	2032	1136	1	1136	193	193	4629	1	32	33	66

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2023	HSAAS05	203959 04/26/99	pBluescript SK-	2033	1500	1	1500	115	115	4630	1	19	20	38
2024	HSAAW13	203918 04/08/99	pBluescript SK-	2034	2384	2	2384	246	246	4631	1			22
2025	HSABA15	203918 04/08/99	pBluescript SK-	2035	947	1	947	110	110	4632	1	29	30	43
2026	HSABG81	203959 04/26/99	pBluescript SK-	2036	2187	365	2187	466	466	4633	1	41	42	42
2027	HSATA50	203918 04/08/99	Uni-ZAP XR	2037	937	1	937	211	211	4634	1			17
2028	HSATA61	203959 04/26/99	Uni-ZAP XR	2038	419	1	419		132	4635	1	13	14	32
2029	HSATG66	203917 04/08/99	Uni-ZAP XR	2039	4049	1146	3480		1815	4636	1			20
2030	HSATI91	203918 04/08/99	Uni-ZAP XR	2040	1377	1	1377		105	4637	1	26	27	67
2031	HSATR50	203959 04/26/99	Uni-ZAP XR	2041	862	1	667	217	217	4638	1	22	23	34
2032	HSATT82	203918 04/08/99	Uni-ZAP XR	2042	1075	1	1075	166	166	4639	1			29
2033	HSATW19	203959 04/26/99	Uni-ZAP XR	2043	695	1	695		185	4640	1			3

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2034	HSATW67	203959 04/26/99	Uni-ZAP XR	2044	721	1	721	37	37	4641	1	18	19	32
2035	HSATZ02	203918 04/08/99	Uni-ZAP XR	2045	1029	6	1029	246	246	4642	1			3
2036	HSAUA95	203918 04/08/99	Uni-ZAP XR	2046	560	1	560	62	62	4643	1	21	22	38
2037	HSAUB89	203918 04/08/99	Uni-ZAP XR	2047	1288	1	1288	161	161	4644	1	20	21	36
2038	HSAUI53	PTA-181 06/07/99	Uni-ZAP XR	2048	1492	1	1492	22	22	4645	1	28	29	39
2039	HSAUV74	PTA-181 06/07/99	Uni-ZAP XR	2049	899	1	899	169	169	4646	1			16
2040	HSAUX39	203959 04/26/99	Uni-ZAP XR	2050	2006	1	2006	98	98	4647	1	29	30	35
2041	HSAVA58	PTA-181 06/07/99	Uni-ZAP XR	2051	1242	1	1242		376	4648	1			7
2042	HSAVE52	203918 04/08/99	Uni-ZAP XR	2052	1467	1	1467	179	179	4649	1	17	18	22
2043	HSAVH32	203959 04/26/99	Uni-ZAP XR	2053	851	1	851	63	63	4650	1	22	23	31

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2044	HSAVM49	203959 04/26/99	Uni-ZAP XR	2054	1266	1	1266		236	4651	1	5	6	25
2045	HSAVO11	203959 04/26/99	Uni-ZAP XR	2055	1623	1	1623	208	208	4652	1	19	20	22
2046	HSAVO17	203959 04/26/99	Uni-ZAP XR	2056	1441	365	1441	727	727	4653	1			38
2047	HSAVQ13	203959 04/26/99	Uni-ZAP XR	2057	576	1	576	18	18	4654	1	19	20	32
2048	HSAVR85	203960 04/26/99	Uni-ZAP XR	2058	5048	48	645		507	4655	1			3
2049	HSAVY92	203959 04/26/99	Uni-ZAP XR	2059	1134	1	1134	100	100	4656	1			8
2050	HSAVZ05	203959 04/26/99	Uni-ZAP XR	2060	1586	315	1586	653	653	4657	1			13
2051	HSAWB58	203959 04/26/99	Uni-ZAP XR	2061	1703	1	1703	121	121	4658	1	18	19	49
2052	HSAWH36	203918 04/08/99	Uni-ZAP XR	2062	1114	1	1114		101	4659	1	21	22	29
2053	HSAWM20	203959 04/26/99	Uni-ZAP XR	2063	624	1	624	126	126	4660	1	18	19	28

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2054	HSAXM74	PTA-181 06/07/99	Uni-ZAP XR	2064	533	1	533		223	4661	1			6
2055	HSAXX70	PTA-791 09/27/99	Uni-ZAP XR	2065	4015	1	4015	1363	1363	4662	1	28	29	57
2056	HSAXC22	203959 04/26/99	Uni-ZAP XR	2066	550	1	550	59	59	4663	1	19	20	31
2057	HSAXI10	203918 04/08/99	Uni-ZAP XR	2067	812	1	812	104	104	4664	1	31	32	69
2058	HSAXL49	203959 04/26/99	Uni-ZAP XR	2068	898	1	898	86	86	4665	1			9
2059	HSAXL82	203918 04/08/99	Uni-ZAP XR	2069	899	1	899		164	4666	1	27	28	40
2060	HSAXN57	203959 04/26/99	Uni-ZAP XR	2070	484	1	484	90	90	4667	1			20
2061	HSAXO45	203918 04/08/99	Uni-ZAP XR	2071	1391	1	1391	260	260	4668	1	16	17	34
2062	HSAXS06	203918 04/08/99	Uni-ZAP XR	2072	1125	1	1125	158	158	4669	1	19	20	36
2063	HSAXS22	203918 04/08/99	Uni-ZAP XR	2073	366	1	362	20	20	4670	1	16	17	35

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2064	HSAYL24	203918 04/08/99	Uni-ZAP XR	2074	1066	1	1066	151	151	4671	1	20	21	62
2065	HSAYO82	203918 04/08/99	Uni-ZAP XR	2075	605	117	605	139	139	4672	1	19	20	41
2066	HSAYR62	203959 04/26/99	Uni-ZAP XR	2076	3116	1559	2971		1900	4673	1	15	16	23
2067	HSAZP90	203959 04/26/99	Uni-ZAP XR	2077	1073	1	1073	136	136	4674	1	29	30	48
2068	HSBAJ47	203959 04/26/99	pBluescript SK-	2078	2195	1	2157	173	173	4675	1	24	25	37
2069	HSDBI90	PTA-181 06/07/99	Uni-ZAP XR	2079	1057	1	1057	218	218	4676	1			14
2070	HSDDC55	203918 04/08/99	Uni-ZAP XR	2080	1626	1	1626	116	116	4677	1	16	17	32
2071	HSDEA26	203918 04/08/99	Uni-ZAP XR	2081	1692	1	1692	246	246	4678	1	15	16	43
2072	HSDEY39	203918 04/08/99	Uni-ZAP XR	2082	975	1	975	88	88	4679	1	22	23	35
2073	hsdff72	203918 04/08/99	Uni-ZAP XR	2083	1276	1	1276	192	192	4680	1	20	21	22

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2074	HSDFO08	203918 04/08/99	Uni-ZAP XR	2084	1212	1	1212	74	74	4681	1	23	24	31
2075	HSDFR10	PTA-181 06/07/99	Uni-ZAP XR	2085	575	1	575	167	167	4682	1	20	21	24
2076	HSDGB20	203918 04/08/99	Uni-ZAP XR	2086	519	1	519	217	217	4683	1	15	16	31
2077	HSDGH56	PTA-181 06/07/99	Uni-ZAP XR	2087	1104	1	1104	76	76	4684	1			16
2078	HSDGM01	203918 04/08/99	Uni-ZAP XR	2088	865	1	865	71	71	4685	1	17	18	35
2079	HSDGM42	203917 04/08/99	Uni-ZAP XR	2089	3244	1	3231	765	765	4686	1	1	2	625
2080	HSDGM42	203917 04/08/99	Uni-ZAP XR	2090	3229	1	3229	67	67	4687	1	21	22	35
2081	HSDGM42	203917 04/08/99	Uni-ZAP XR	2091	1545	14	1124		940	4688	1	6	7	12
2082	HSDGM42	203917 04/08/99	Uni-ZAP XR	2092	3304	1	3291	399	399	4689	1	1	2	767
2083	HSDGM42	203917 04/08/99	Uni-ZAP XR	2093	3303	1	3290	128	128	4690	1	21	22	35

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2084	HSDGM42	203917 04/08/99	Uni-ZAP XR	2094	3304	1	3291	128	128	4691	1	21	22	35
2085	HSDHD05	203918 04/08/99	Uni-ZAP XR	2095	815	1	815	229	229	4692	1	19	20	62
2086	HSDIE51	203918 04/08/99	Uni-ZAP XR	2096	1433	1	1433	185	185	4693	1	18	19	28
2087	HSDIK31	203979 04/29/99	Uni-ZAP XR	2097	1862	1	1862	194	194	4694	1	27	28	48
2088	HSDIV37	203979 04/29/99	Uni-ZAP XR	2098	1201	1	1201	147	147	4695	1	19	20	30
2089	HSDJC96	203918 04/08/99	Uni-ZAP XR	2099	1969	439	1969	687	687	4696	1	27	28	47
2090	HSDJE77	203918 04/08/99	Uni-ZAP XR	2100	1166	1	1137	114	114	4697	1	22	23	32
2091	HSDJF04	203959 04/26/99	Uni-ZAP XR	2101	1144	1	1144		74	4698	1	29	30	116
2092	HSDJG47	203979 04/29/99	Uni-ZAP XR	2102	1930	245	1908		714	4699	1	19	20	45
2093	HSDJH72	203918 04/08/99	Uni-ZAP XR	2103	1753	1	1753	241	241	4700	1	14	15	23

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2094	HSDJL07	PTA-795 09/27/99	Uni-ZAP XR	2104	1501	1	1501	282	282	4701	1	21	22	36
2095	HSDJR49	203918 04/08/99	Uni-ZAP XR	2105	1450	1	1450	102	102	4702	1	24	25	33
2096	HSDJV24	203918 04/08/99	Uni-ZAP XR	2106	2329	759	2329		2	4703	1	1	2	496
2097	HSDJV40	203918 04/08/99	Uni-ZAP XR	2107	1593	1	1593	126	126	4704	1	42	43	63
2098	HSDKA64	203918 04/08/99	Uni-ZAP XR	2108	1583	1	1583	199	199	4705	1	44	45	55
2099	HSDKE82	203918 04/08/99	Uni-ZAP XR	2109	1434	1	1434	120	120	4706	1	35	36	96
2100	HSDKF96	203918 04/08/99	Uni-ZAP XR	2110	1710	1	1710	187	187	4707	1	24	25	25
2101	HSDZO08	203959 04/26/99	pBluescript	2111	2279	1029	2255	1142	1142	4708	1	45	46	169
2102	HSDZQ96	203918 04/08/99	pBluescript	2112	708	1	708	330	330	4709	1			13
2103	HSEBB18	PTA-792 09/27/99	pCMVSPORT 1	2113	1297	1	1297	268	268	4710	1			14

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2104	HSFAM19	203918 04/08/99	Uni-ZAP XR	2114	1434	1	1434	170	170	4711	1	21	22	48
2105	HSHAG54	203959 04/26/99	Uni-ZAP XR	2115	1501	20	1358		155	4712	1	18	19	38
2106	HSHAS72	203960 04/26/99	Uni-ZAP XR	2116	4416	1	4416	207	207	4713	1	30	31	72
2107	HSHAX04	203959 04/26/99	Uni-ZAP XR	2117	1287	494	1285		42	4714	1	6	7	57
2108	HSHBT15	203918 04/08/99	Uni-ZAP XR	2118	1544	1	1528		187	4715	1	25	26	93
2109	HSHCE85	PTA-181 06/07/99	Uni-ZAP XR	2119	1225	1	1225	263	263	4716	1	13	14	36
2110	HSIAC81	203959 04/26/99	Uni-ZAP XR	2120	1913	1	1913	46	46	4717	1			21
2111	HSIAF66	PTA-181 06/07/99	Uni-ZAP XR	2121	2192	1	2192	74	74	4718	1	25	26	37
2112	HSIAP01	PTA-795 09/27/99	Uni-ZAP XR	2122	1385	1	855	90	90	4719	1	21	22	26
2113	HSIDA33	203979 04/29/99	Uni-ZAP XR	2123	556	1	535		196	4720	1			4

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2114	HSIDA39	203918 04/08/99	Uni-ZAP XR	2124	789	1	789		260	4721	1	19	20	57
2115	HSIDZ25	203918 04/08/99	Uni-ZAP XR	2125	1691	1	1691		53	4722	1	11	12	111
2116	HSIEB64	203918 04/08/99	Uni-ZAP XR	2126	2148	1	2148	182	182	4723	1	21	22	32
2117	HSIEM18	203918 04/08/99	Uni-ZAP XR	2127	1111	1	1111	162	162	4724	1			15
2118	HSIFO61	203979 04/29/99	Uni-ZAP XR	2128	2150	647	2076	95	95	4725	1	22	23	613
2119	HSIFO61	203979 04/29/99	Uni-ZAP XR	2129	2238	735	2164	772	772	4726	1	29	30	36
2120	HSIGC63	PTA-791 09/27/99	Uni-ZAP XR	2130	1750	1	1750	259	259	4727	1			14
2121	HSIGM95	203959 04/26/99	Uni-ZAP XR	2131	979	1	979	398	398	4728	1			1
2122	HSJAE76	203917 04/08/99	Uni-ZAP XR	2132	2367	127	2245	180	180	4729	1	17	18	30
2123	HSJAN83	203918 04/08/99	Uni-ZAP XR	2133	1092	1	1092		189	4730	1			12

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2124	HSJAQ10	PTA-181 06/07/99	Uni-ZAP XR	2134	954	1	954	56	56	4731	1	31	32	44
2125	HSJAR59	203959 04/26/99	Uni-ZAP XR	2135	541	1	541	35	35	4732	1			31
2126	HSJAU93	203918 04/08/99	Uni-ZAP XR	2136	1142	1	1142		87	4733	1	35	36	181
2127	HSJAY14	203959 04/26/99	Uni-ZAP XR	2137	1452	380	1349	416	416	4734	1			4
2128	HSJAY14	203959 04/26/99	Uni-ZAP XR	2138	1452	380	1349	416	416	4735	1			4
2129	HSJAY14	203959 04/26/99	Uni-ZAP XR	2139	1452	380	1349	416	416	4736	1			4
2130	HSJAY14	203959 04/26/99	Uni-ZAP XR	2140	1452	380	1349	416	416	4737	1			4
2131	HSJBB27	203918 04/08/99	Uni-ZAP XR	2141	1195	1	1195	66	66	4738	1	25	26	39
2132	HSKBU03	203959 04/26/99	Uni-ZAP XR	2142	542	1	542	79	79	4739	1			20
2133	HSKCQ51	203959 04/26/99	Uni-ZAP XR	2143	549	1	549		235	4740	1	10	11	97

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2134	HSKDE13	203959 04/26/99	Uni-ZAP XR	2144	1707	1	1707	132	132	4741	1			19
2135	HSKDS47	203959 04/26/99	Uni-ZAP XR	2145	1159	474	1159		740	4742	1	13	14	17
2136	HSKHV81	203979 04/29/99	pBluescript	2146	960	1	960	183	183	4743	1	28	29	36
2137	HSKXB14	203959 04/26/99	pBluescript	2147	1065	244	1058	315	315	4744	1	20	21	38
2138	HSKYR49	203959 04/26/99	pBluescript	2148	2631	1750	2631	2066	2066	4745	1	20	21	81
2139	HSKYU81	PTA-795 09/27/99	pBluescript	2149	1879	1	1879	121	121	4746	1	24	25	50
2140	HSKYY92	PTA-181 06/07/99	pBluescript	2150	1631	1	1631	133	133	4747	1			16
2141	HSLAB11	203918 04/08/99	Uni-ZAP XR	2151	3382	1385	3382	1409	1409	4748	1	24	25	46
2142	HSLAS96	203959 04/26/99	Uni-ZAP XR	2152	1408	1	1408	99	99	4749	1	16	17	26
2143	HSLAW59	203918 04/08/99	Uni-ZAP XR	2153	583	1	583	18	18	4750	1	20	21	51

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2144	HSLCH54	203918 04/08/99	Uni-ZAP XR	2154	570	1	570		58	4751	1	24	25	61
2145	HSLCH57	PTA-795 09/27/99	Uni-ZAP XR	2155	2369	1	2369	101	101	4752	1	28	29	115
2146	HSLCI86	203959 04/26/99	Uni-ZAP XR	2156	1936	243	1936	598	598	4753	1			13
2147	HSLCS31	203918 04/08/99	Uni-ZAP XR	2157	1879	1	1879	13	13	4754	1	25	26	345
2148	HSLCS34	203918 04/08/99	Uni-ZAP XR	2158	1089	1	1089	61	61	4755	1	49	50	107
2149	HSLCV16	203959 04/26/99	Uni-ZAP XR	2159	2957	746	2500	965	965	4756	1	37	38	42
2150	HSLDW54	PTA-181 06/07/99	Uni-ZAP XR	2160	1419	1	1419	153	153	4757	1	11	12	69
2151	HSEEC18	203959 04/26/99	Uni-ZAP XR	2161	2043	1	2043	270	270	4758	1	26	27	350
2152	HSLEG59	203918 04/08/99	Uni-ZAP XR	2162	1484	1	1484	87	87	4759	1	28	29	36
2153	HSLFR59	PTA-181 06/07/99	Uni-ZAP XR	2163	2865	1	2865	320	320	4760	1	19	20	58

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2154	HSLGD91	PTA-792 09/27/99	Uni-ZAP XR	2164	1272	834	1272		70	4761	1			5
2155	HSLGF66	203959 04/26/99	Uni-ZAP XR	2165	1529	1	1529	226	226	4762	1	9	10	10
2156	HSLGF70	203959 04/26/99	Uni-ZAP XR	2166	1314	1	1314	890	890	4763	1	16	17	30
2157	HSLGP68	PTA-181 06/07/99	Uni-ZAP XR	2167	2354	1	2354	166	166	4764	1	19	20	26
2158	HSNAB88	203918 04/08/99	Uni-ZAP XR	2168	744	1	744	262	262	4765	1	12	13	15
2159	HSNAH56	203918 04/08/99	Uni-ZAP XR	2169	372	1	372	171	171	4766	1	23	24	45
2160	HSNAN38	PTA-181 06/07/99	Uni-ZAP XR	2170	427	1	427	240	240	4767	1	13	14	53
2161	HSNAO19	203959 04/26/99	Uni-ZAP XR	2171	304	1	304	226	226	4768	1			4
2162	HSNAQ52	203918 04/08/99	Uni-ZAP XR	2172	400	1	400		218	4769	1			9
2163	HSNAT08	203918 04/08/99	Uni-ZAP XR	2173	703	1	703	25	25	4770	1	30	31	46

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2164	HSNAW06	203918 04/08/99	Uni-ZAP XR	2174	675	1	675		174	4771	1	8	9	12
2165	HSNAW37	203918 04/08/99	Uni-ZAP XR	2175	432	1	432		237	4772	1	10	11	28
2166	HSNBJ05	203918 04/08/99	Uni-ZAP XR	2176	794	1	794	136	136	4773	1	13	14	34
2167	HSNBO90	203918 04/08/99	Uni-ZAP XR	2177	425	1	425	286	286	4774	1			16
2168	HSNBQ36	203918 04/08/99	Uni-ZAP XR	2178	1489	781	1489	838	838	4775	1	27	28	29
2169	HSNBS39	203918 04/08/99	Uni-ZAP XR	2179	323	1	323	190	190	4776	1			14
2170	HSOAE34	203959 04/26/99	Uni-ZAP XR	2180	674	1	674	231	231	4777	1			8
2171	HSOAT44	203979 04/29/99	Uni-ZAP XR	2181	650	1	650	31	31	4778	1	18	19	55
2172	HSOBB94	203959 04/26/99	Uni-ZAP XR	2182	757	1	757		565	4779	1	10	11	55
2173	HSOBH11	203959 04/26/99	Uni-ZAP XR	2183	818	1	818	131	131	4780	1			12
2174	HSOBP75	203959 04/26/99	Uni-ZAP XR	2184	821	1	821		438	4781	1	15	16	43

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2175	HSOBW65	203959 04/26/99	Uni-ZAP XR	2185	735	1	735	387	387	4782	1			18
2176	HSPAA89	203918 04/08/99	pSport1	2186	1372	1	1372	252	252	4783	1	20	21	55
2177	HSPAC13	203918 04/08/99	pSport1	2187	580	1	580	33	33	4784	1	21	22	37
2178	HSPAG75	PTA-793 09/27/99	pSport1	2188	2120	1	2120	246	246	4785	1	19	20	37
2179	HSPA120	203918 04/08/99	pSport1	2189	1467	1	1467	261	261	4786	1	20	21	44
2180	HSPAL59	PTA-181 06/07/99	pSport1	2190	1917	113	1383	250	250	4787	1	19	20	33
2181	HSPAY90	203959 04/26/99	pSport1	2191	1164	1	1164	190	190	4788	1	29	30	49
2182	HSPMF63	203959 04/26/99	pSport1	2192	1180	1	1148		179	4789	1	18	19	33
2183	HSQAC69	PTA-791 09/27/99	Uni-ZAP XR	2193	2056	526	2056	671	671	4790	1	21	22	45
2184	HSQAH14	203959 04/26/99	Uni-ZAP XR	2194	825	137	825		267	4791	1			13

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2185	HSQAX94	203918 04/08/99	Uni-ZAP XR	2195	3107	814	3107	886	886	4792	1	33	34	81
2186	HSQBL20	203959 04/26/99	Uni-ZAP XR	2196	939	405	918	183	183	4793	1	1	2	218
2187	HSQCQ45	203918 04/08/99	Uni-ZAP XR	2197	588	1	588	41	41	4794	1	25	26	30
2188	HSQCY74	PTA-793 09/27/99	Uni-ZAP XR	2198	2317	280	2317	440	440	4795	1			12
2189	HSQDM74	203918 04/08/99	Uni-ZAP XR	2199	1290	1	1290	192	192	4796	1	22	23	27
2190	HSQEG23	203959 04/26/99	Uni-ZAP XR	2200	2290	188	1071		302	4797	1	17	18	22
2191	HSQEG47	203959 04/26/99	Uni-ZAP XR	2201	1934	883	1905		1001	4798	1			12
2192	HSQFE72	203917 04/08/99	Uni-ZAP XR	2202	357	0	1	93	93	4799	1			27
2193	HSQFE76	PTA-181 06/07/99	Uni-ZAP XR	2203	1469	7	1469	31	31	4800	1	19	20	31
2194	HSQFV12	203918 04/08/99	Uni-ZAP XR	2204	567	1	567		267	4801	1	7	8	30

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2195	HSRAA81	203918 04/08/99	Uni-ZAP XR	2205	1679	1	1679	235	235	4802	1	18	19	43
2196	HSRAO56	203959 04/26/99	Uni-ZAP XR	2206	1598	11	1598		131	4803	1	19	20	20
2197	HSRAV28	203918 04/08/99	Uni-ZAP XR	2207	824	1	824		301	4804	1			14
2198	HSRDM56	203918 04/08/99	Uni-ZAP XR	2208	2023	1	2023	134	134	4805	1	27	28	73
2199	HSRDW57	203918 04/08/99	Uni-ZAP XR	2209	942	1	942		8	4806	1	20	21	117
2200	HSREC72	203918 04/08/99	Uni-ZAP XR	2210	884	1	884	172	172	4807	1	22	23	34
2201	HSREG42	203959 04/26/99	Uni-ZAP XR	2211	2637	578	2282	730	730	4808	1			27
2202	HSRFD18	203959 04/26/99	Uni-ZAP XR	2212	1889	1	1793	67	67	4809	1	20	21	28
2203	HSRGZ11	203959 04/26/99	Uni-ZAP XR	2213	785	1	785	208	208	4810	1			14
2204	HSRHB59	203959 04/26/99	Uni-ZAP XR	2214	854	1	844	308	308	4811	1	19	20	56
2205	HSSAN03	203918 04/08/99	Uni-ZAP XR	2215	753	1	753	130	130	4812	1	18	19	39

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2206	HSSCC66	203918 04/08/99	Uni-ZAP XR	2216	864	1	864	174	174	4813	1	18	19	36
2207	HSSDI13	203918 04/08/99	Uni-ZAP XR	2217	1863	1	1863	107	107	4814	1	25	26	36
2208	HSSDQ20	203959 04/26/99	Uni-ZAP XR	2218	1114	69	1114	261	261	4815	1	23	24	92
2209	HSSDX38	203959 04/26/99	Uni-ZAP XR	2219	796	1	796		244	4816	1	16	17	22
2210	HSSSE57	203918 04/08/99	Uni-ZAP XR	2220	1545	1	1545	191	191	4817	1	38	39	70
2211	HSSSEL28	203959 04/26/99	Uni-ZAP XR	2221	1733	1	1733		166	4818	1	18	19	27
2212	HSSFP88	203918 04/08/99	Uni-ZAP XR	2222	1417	1	1417	141	141	4819	1	24	25	350
2213	HSSGS62	203918 04/08/99	Uni-ZAP XR	2223	1389	1	1389	249	249	4820	1	19	20	55
2214	HSSJA23	203979 04/29/99	Uni-ZAP XR	2224	1988	1	1988	261	261	4821	1	16	17	27
2215	HSSJF26	203918 04/08/99	Uni-ZAP XR	2225	1301	1	1301	177	177	4822	1	32	33	71

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2216	HSSJF96	PTA-181 06/07/99	Uni-ZAP XR	2226	2192	1	2192	14	14	4823	1	19	20	57
2217	HSSJM47	203979 04/29/99	Uni-ZAP XR	2227	1152	1	1000		151	4824	1			2
2218	HSSJW30	203979 04/29/99	Uni-ZAP XR	2228	1893	581	1880		713	4825	1	15	16	24
2219	HSSJW30	203979 04/29/99	Uni-ZAP XR	2229	2108	796	2095		928	4826	1	15	16	24
2220	HSSJW30	203979 04/29/99	Uni-ZAP XR	2230	2266	935	2234		1067	4827	1	15	16	24
2221	HSSMY35	203959 04/26/99	Uni-ZAP XR	2231	831	10	831	42	42	4828	1	19	20	54
2222	HSTAL93	203918 04/08/99	Uni-ZAP XR	2232	972	1	972	127	127	4829	1			13
2223	HSTBG23	203918 04/08/99	Uni-ZAP XR	2233	1695	1	1695	96	96	4830	1	26	27	31
2224	HSUAF06	PTA-181 06/07/99	Uni-ZAP XR	2234	1320	1	1320	109	109	4831	1	20	21	89
2225	HSUBX67	203918 04/08/99	Uni-ZAP XR	2235	805	1	805		295	4832	1			11

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2226	HSUSB73	203918 04/08/99	pBluescript	2236	1538	1	1538	158	158	4833	1	23	24	91
2227	HSVAC05	203979 04/29/99	Uni-ZAP XR	2237	698	1	698	60	60	4834	1	32	33	37
2228	HSVAE42	203918 04/08/99	Uni-ZAP XR	2238	525	1	525		295	4835	1	11	12	40
2229	HSVAl83	203959 04/26/99	Uni-ZAP XR	2239	861	1	861	308	308	4836	1	32	33	36
2230	HSVAT36	203959 04/26/99	Uni-ZAP XR	2240	571	1	571		162	4837	1			2
2231	HSVAV02	203959 04/26/99	Uni-ZAP XR	2241	446	1	446	309	309	4838	1			31
2232	HSVBA83	203959 04/26/99	Uni-ZAP XR	2242	780	1	780	139	139	4839	1			15
2233	HSVBD37	203959 04/26/99	Uni-ZAP XR	2243	464	1	464	146	146	4840	1			6
2234	HSVBN46	203959 04/26/99	Uni-ZAP XR	2244	785	1	785	120	120	4841	1	21	22	44
2235	HSVBY62	203959 04/26/99	Uni-ZAP XR	2245	410	1	410		188	4842	1	23	24	28
2236	HSVBZ53	203959 04/26/99	Uni-ZAP XR	2246	1304	317	1243	461	461	4843	1	16	17	25

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2237	HSVCF53	203959 04/26/99	Uni-ZAP XR	2247	1248	1	1248	259	259	4844	1			23
2238	HSWAZ17	203918 04/08/99	pCMVSPORT 3.0	2248	914	1	914	257	257	4845	1			18
2239	HSWBI16	203959 04/26/99	pCMVSPORT 3.0	2249	1122	627	1122	817	817	4846	1	20	21	21
2240	HSXAI44	203918 04/08/99	Uni-ZAP XR	2250	1041	1	1041	132	132	4847	1			26
2241	HSXAJ07	203918 04/08/99	Uni-ZAP XR	2251	900	1	900	217	217	4848	1			5
2242	HSXAS59	203959 04/26/99	Uni-ZAP XR	2252	1536	94	1536		244	4849	1	30	31	92
2243	HSXAX20	203918 04/08/99	Uni-ZAP XR	2253	1388	1	1388		347	4850	1			9
2244	HSXAY60	203959 04/26/99	Uni-ZAP XR	2254	1769	1	1769	345	345	4851	1	13	14	100
2245	HSXBB78	203918 04/08/99	Uni-ZAP XR	2255	1502	1	1502	156	156	4852	1			16
2246	HSXCA83	203959 04/26/99	Uni-ZAP XR	2256	2199	1413	2199		1796	4853	1			16
2247	HSXCX20	203959 04/26/99	Uni-ZAP XR	2257	1385	1	1385		95	4854	1	12	13	36

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2248	HSXFG21	203917 04/08/99	Uni-ZAP XR	2258	3787	738	3787		989	4855	1			1
2249	HSXFH82	203959 04/26/99	Uni-ZAP XR	2259	1705	1	1678		182	4856	1	17	18	34
2250	HSYBD33	203918 04/08/99	pCMVSPORT 3.0	2260	1067	1	1067		329	4857	1	19	20	52
2251	HSYBR79	PTA-791 09/27/99	pCMVSPORT 3.0	2261	2270	6	2264	425	425	4858	1	23	24	57
2252	HSYBV44	203959 04/26/99	pCMVSPORT 3.0	2262	778	1	778	84	84	4859	1	32	33	47
2253	HSYBZ94	203959 04/26/99	pCMVSPORT 3.0	2263	3268	1	3268	52	52	4860	1	35	36	79
2254	HT3AB13	203979 04/29/99	Uni-ZAP XR	2264	3350	1954	3315	2055	2055	4861	1	21	22	63
2255	HT4SB02	203917 04/08/99	Uni-ZAP XR	2265	3054	95	1189	21	21	4862	1	1	2	168
2256	HT4SB37	203918 04/08/99	Uni-ZAP XR	2266	1029	1	1029	299	299	4863	1	33	34	35
2257	HT4SB81	203959 04/26/99	Uni-ZAP XR	2267	2319	959	2319	1168	1168	4864	1	13	14	35

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2258	HT4SB81	203959 04/26/99	Uni-ZAP XR	2268	2331	962	2320	1171	1171	4865	1	13	14	35
2259	HT4SB81	203959 04/26/99	Uni-ZAP XR	2269	2331	962	2320	1171	1171	4866	1	13	14	35
2260	HT5FX76	203959 04/26/99	Uni-ZAP XR	2270	643	1	643	98	98	4867	1	32	33	52
2261	HTABF81	203918 04/08/99	Uni-ZAP XR	2271	1620	1	1620	255	255	4868	1			15
2262	HTACX63	203959 04/26/99	Uni-ZAP XR	2272	1095	1	1095	202	202	4869	1			18
2263	HTADC63	203979 04/29/99	Uni-ZAP XR	2273	2458	1	2406		188	4870	1	17	18	215
2264	HTADO61	203959 04/26/99	Uni-ZAP XR	2274	1127	1	1127	217	217	4871	1	28	29	39
2265	HTADQ22	203918 04/08/99	Uni-ZAP XR	2275	378	1	378	205	205	4872	1	23	24	24
2266	HTAEC59	203979 04/29/99	Uni-ZAP XR	2276	2056	1	2056		287	4873	1	16	17	21
2267	HTAED89	203918 04/08/99	Uni-ZAP XR	2277	2366	1	2366	979	979	4874	1	16	17	200
2268	HTAEF02	203979 04/29/99	Uni-ZAP XR	2278	2761	1	2761	183	183	4875	1	16	17	51

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2269	HTAEH58	203959 04/26/99	Uni-ZAP XR	2279	1601	147	1601		295	4876	1	15	16	54
2270	HTAEO35	203959 04/26/99	Uni-ZAP XR	2280	1514	1	1514	63	63	4877	1	33	34	35
2271	HTDAF68	203918 04/08/99	pSport1	2281	1079	1	1079	167	167	4878	1	34	35	54
2272	HTDAI38	PTA-792 09/27/99	pSport1	2282	2814	1188	2796	1414	1414	4879	1	21	22	76
2273	HTEAJ87	PTA-181 06/07/99	Uni-ZAP XR	2283	2200	1	2200	67	67	4880	1	24	25	38
2274	HTEAN76	203959 04/26/99	Uni-ZAP XR	2284	966	188	955	290	290	4881	1	31	32	37
2275	HTEBL56	203918 04/08/99	Uni-ZAP XR	2285	1512	1	1512	180	180	4882	1	15	16	21
2276	HTECE87	203959 04/26/99	Uni-ZAP XR	2286	946	1	946	157	157	4883	1	33	34	41
2277	HTEDF78	203918 04/08/99	Uni-ZAP XR	2287	1570	1	1570	83	83	4884	1	34	35	53
2278	HTEDT87	203979 04/29/99	Uni-ZAP XR	2288	2418	726	2418	949	949	4885	1			17

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2279	HTEDX05	PTA-181 06/07/99	Uni-ZAP XR	2289	2220	1	2220	65	65	4886	1	18	19	20
2280	HTEEC19	PTA-181 06/07/99	Uni-ZAP XR	2290	1721	1	1721	72	72	4887	1	21	22	30
2281	HTEGH03	203959 04/26/99	Uni-ZAP XR	2291	2267	91	2248	156	156	4888	1	19	20	33
2282	HTEGH03	203959 04/26/99	Uni-ZAP XR	2292	2158	1	2151		1	4889	1	1	2	233
2283	HTEGS48	203918 04/08/99	Uni-ZAP XR	2293	763	1	763	289	289	4890	1	20	21	49
2284	HTEGY81	203918 04/08/99	Uni-ZAP XR	2294	1134	1	1134	36	36	4891	1			20
2285	HTEHB11	203959 04/26/99	Uni-ZAP XR	2295	963	1	963	271	271	4892	1			12
2286	HTEHB49	203959 04/26/99	Uni-ZAP XR	2296	1876	1	1738	192	192	4893	1	20	21	35
2287	HTEHS91	PTA-181 06/07/99	Uni-ZAP XR	2297	2202	1	2186	343	343	4894	1	17	18	66
2288	HTEHV60	203918 04/08/99	Uni-ZAP XR	2298	1316	1	1316	38	38	4895	1	23	24	30

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2289	HTEHW80	PTA-181 06/07/99	Uni-ZAP XR	2299	1167	1	1167		96	4896	1	12	13	29
2290	HTEID25	203959 04/26/99	Uni-ZAP XR	2300	1436	1	1436	141	141	4897	1	18	19	38
2291	HTEIJ23	203917 04/08/99	Uni-ZAP XR	2301	2593	1	1398	156	156	4898	1			17
2292	HTEIM62	203959 04/26/99	Uni-ZAP XR	2302	673	196	673	183	183	4899	1			24
2293	HTEIV33	203959 04/26/99	Uni-ZAP XR	2303	1051	1	1051		207	4900	1			6
2294	HTEIV65	203918 04/08/99	Uni-ZAP XR	2304	743	1	743	102	102	4901	1	20	21	41
2295	HTEJCS0	203959 04/26/99	Uni-ZAP XR	2305	429	1	429	96	96	4902	1	21	22	29
2296	HTEJD20	203918 04/08/99	Uni-ZAP XR	2306	1471	1	1471	257	257	4903	1			11
2297	HTEJD61	203959 04/26/99	Uni-ZAP XR	2307	1154	1	1154	94	94	4904	1	23	24	24
2298	HTEJF31	203959 04/26/99	Uni-ZAP XR	2308	395	1	395	124	124	4905	1	18	19	40

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2299	HTEJI29	203959 04/26/99	Uni-ZAP XR	2309	975	1	975	298	298	4906	1	15	16	17
2300	HTEJL16	203959 04/26/99	Uni-ZAP XR	2310	1158	1	1158	136	136	4907	1	26	27	37
2301	HTEJP65	203918 04/08/99	Uni-ZAP XR	2311	754	1	754	389	389	4908	1	20	21	33
2302	HTEJY20	203959 04/26/99	Uni-ZAP XR	2312	2908	1602	2908	1747	1747	4909	1	18	19	44
2303	HTEKD35	203959 04/26/99	Uni-ZAP XR	2313	688	1	688	41	41	4910	1	15	16	31
2304	HTEKP82	203959 04/26/99	Uni-ZAP XR	2314	930	1	930	457	457	4911	1	15	16	35
2305	HTEKV69	PTA-792 09/27/99	Uni-ZAP XR	2315	1663	1	1663	634	634	4912	1	33	34	322
2306	HTEKZ52	203959 04/26/99	Uni-ZAP XR	2316	288	1	288	146	146	4913	1	23	24	32
2307	HTEQG28	203959 04/26/99	Uni-ZAP XR	2317	1719	1	1719		389	4914	1	15	16	21
2308	HTFOB75	PTA-1838 05/09/00	pSport1	2318	3299	1996	3274	2365	2365	4915	1	46	47	142

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2309	HTGAA35	203959 04/26/99	Uni-ZAP XR	2319	1633	25	1633	180	180	4916	1			10
2310	HTGAD74	203959 04/26/99	Uni-ZAP XR	2320	890	7	890		311	4917	1	13	14	23
2311	HTGAP05	203918 04/08/99	Uni-ZAP XR	2321	1074	670	1074	211	211	4918	1			23
2312	HTGAQ29	203918 04/08/99	Uni-ZAP XR	2322	631	1	631	127	127	4919	1	19	20	52
2313	HTGAR21	203959 04/26/99	Uni-ZAP XR	2323	1104	1	1104	97	97	4920	1	23	24	34
2314	HTGAS70	203918 04/08/99	Uni-ZAP XR	2324	1803	1	1803	435	435	4921	1	21	22	42
2315	HTGAT65	203918 04/08/99	Uni-ZAP XR	2325	1610	1	1610	155	155	4922	1			16
2316	HTGAU17	203918 04/08/99	Uni-ZAP XR	2326	1228	1	1228	109	109	4923	1	24	25	34
2317	HTGBF47	203918 04/08/99	Uni-ZAP XR	2327	787	1	787	188	188	4924	1	32	33	73
2318	HTGBK95	203959 04/26/99	Uni-ZAP XR	2328	1131	1	1131	271	271	4925	1	12	13	16
2319	HTGCC01	203918 04/08/99	Uni-ZAP XR	2329	1133	1	1133	55	55	4926	1			28

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2320	HTGCK43	203959 04/26/99	Uni-ZAP XR	2330	962	208	956	231	231	4927	1	6	7	15
2321	HTGDS43	203918 04/08/99	Uni-ZAP XR	2331	950	1	950	271	271	4928	1	17	18	22
2322	HTGDS92	203918 04/08/99	Uni-ZAP XR	2332	1325	1	1325	80	80	4929	1	31	32	39
2323	HTGEX34	PTA-792 09/27/99	Uni-ZAP XR	2333	2301	1	2301	13	13	4930	1	22	23	44
2324	HTGFM31	PTA-181 06/07/99	Uni-ZAP XR	2334	2057	1	2057	73	73	4931	1	30	31	38
2325	HTGGM37	203959 04/26/99	Uni-ZAP XR	2335	1927	1	1927	290	290	4932	1	20	21	27
2326	HTGGN22	203959 04/26/99	Uni-ZAP XR	2336	793	1	793		243	4933	1			20
2327	HTHAA41	203918 04/08/99	Uni-ZAP XR	2337	1943	1	1943	128	128	4934	1	14	15	32
2328	HTHBC58	203918 04/08/99	Uni-ZAP XR	2338	1479	458	1479	519	519	4935	1			14
2329	HTHBO72	203959 04/26/99	Uni-ZAP XR	2339	538	1	538	335	335	4936	1	17	18	20

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2330	HTHBQ29	203918 04/08/99	Uni-ZAP XR	2340	1090	1	1090	165	165	4937	1	21	22	39
2331	HTHBT76	PTA-181 06/07/99	Uni-ZAP XR	2341	2025	1	2025	207	207	4938	1			12
2332	HTHBZ91	203918 04/08/99	Uni-ZAP XR	2342	986	1	986	31	31	4939	1	35	36	37
2333	HTHCA30	203959 04/26/99	Uni-ZAP XR	2343	627	1	627	158	158	4940	1			23
2334	HTHCM60	203918 04/08/99	Uni-ZAP XR	2344	1220	1	1220		250	4941	1			7
2335	HTHDB20	203918 04/08/99	Uni-ZAP XR	2345	657	1	657	105	105	4942	1	41	42	72
2336	HTHDF45	203918 04/08/99	Uni-ZAP XR	2346	1026	1	1026	175	175	4943	1	13	14	21
2337	HTHDF86	203918 04/08/99	Uni-ZAP XR	2347	1535	1	1535		118	4944	1	43	44	80
2338	HTHDI18	203918 04/08/99	Uni-ZAP XR	2348	1242	1	1242		247	4945	1	17	18	67
2339	HTHDP65	203918 04/08/99	Uni-ZAP XR	2349	633	1	633	217	217	4946	1	17	18	43

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2340	HTHDT25	203918 04/08/99	Uni-ZAP XR	2350	422	1	422	60	60	4947	1	34	35	45
2341	HTHDV50	203959 04/26/99	Uni-ZAP XR	2351	535	1	391		119	4948	1	6	7	23
2342	HTJMA64	203918 04/08/99	pCMVSPORT 2.0	2352	2259	1	2259	138	138	4949	1	28	29	92
2343	HTJMJ72	203959 04/26/99	pCMVSPORT 2.0	2353	854	1	854	263	263	4950	1	23	24	27
2344	HTLAD74	203959 04/26/99	Uni-ZAP XR	2354	971	1	971	163	163	4951	1	17	18	33
2345	HTLAF81	PTA-181 06/07/99	Uni-ZAP XR	2355	1229	1	1229		195	4952	1	14	15	190
2346	HTLBF46	203959 04/26/99	Uni-ZAP XR	2356	1260	1	1235	176	176	4953	1	18	19	194
2347	HTLBF63	203959 04/26/99	Uni-ZAP XR	2357	1124	1	1124	97	97	4954	1	12	13	232
2348	HTLCX82	203979 04/29/99	Uni-ZAP XR	2358	920	1	920		46	4955	1	15	16	75
2349	HTLDD89	203959 04/26/99	Uni-ZAP XR	2359	489	1	489	263	263	4956	1	21	22	49

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2350	HTLDN34	PTA-181 06/07/99	Uni-ZAP XR	2360	882	1	882	84	84	4957	1	19	20	93
2351	HTLDP19	PTA-793 09/27/99	Uni-ZAP XR	2361	957	1	957	99	99	4958	1	23	24	176
2352	HTLDY30	PTA-1838 05/09/00	Uni-ZAP XR	2362	1240	1	1240	115	115	4959	1			8
2353	HTLEJ24	203918 04/08/99	Uni-ZAP XR	2363	928	1	928	110	110	4960	1	18	19	170
2354	HTLEJ75	203959 04/26/99	Uni-ZAP XR	2364	2569	1336	2533	1559	1559	4961	1			13
2355	HTLEJ75	203959 04/26/99	Uni-ZAP XR	2365	1192	1	1192	224	224	4962	1			13
2356	HTLEP55	203918 04/08/99	Uni-ZAP XR	2366	1507	1	1507	133	133	4963	1	38	39	152
2357	HTLEV80	PTA-181 06/07/99	Uni-ZAP XR	2367	1129	1	1129	276	276	4964	1	18	19	75
2358	HTLEZ57	203959 04/26/99	Uni-ZAP XR	2368	1003	1	1003	187	187	4965	1	15	16	35

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2359	HTLFA90	203960 04/26/99	Uni-ZAP XR	2369	1314	1	1304	131	131	4966	1	32	33	314
2360	HTLGL33	203959 04/26/99	Uni-ZAP XR	2370	1703	539	1703	763	763	4967	1	19	20	174
2361	HTLGQ25	PTA-795 09/27/99	Uni-ZAP XR	2371	669	1	669	24	24	4968	1	28	29	170
2362	HTLGS72	PTA-795 09/27/99	Uni-ZAP XR	2372	1189	1	1189	363	363	4969	1	19	20	85
2363	HTLGY50	203959 04/26/99	Uni-ZAP XR	2373	1245	1	1245	337	337	4970	1	23	24	303
2364	HTLHN86	203959 04/26/99	Uni-ZAP XR	2374	2204	1059	2133	1413	1413	4971	1	20	21	187
2365	HTLHN86	203959 04/26/99	Uni-ZAP XR	2375	2240	1059	2184	1413	1413	4972	1	20	21	187
2366	HTLHN86	203959 04/26/99	Uni-ZAP XR	2376	2240	1059	2133	1413	1413	4973	1	20	21	187
2367	HTLHN86	203959 04/26/99	Uni-ZAP XR	2377	2240	1059	2133	1413	1413	4974	1	20	21	187
2368	HTLIW29	PTA-795 09/27/99	Uni-ZAP XR	2378	1082	1	1082	10	10	4975	1	19	20	314

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2369	HTLJC15	PTA-1838 05/09/00	Uni-ZAP XR	2379	1913	697	1873	996	996	4976	1	38	39	240
2370	HTNAL14	PTA-793 09/27/99	pBluescript SK-	2380	1989	1	1989	166	166	4977	1	18	19	31
2371	HTNAL34	203918 04/08/99	pBluescript SK-	2381	336	1	336	225	225	4978	1	15	16	23
2372	HTNBJ15	203959 04/26/99	pBluescript SK-	2382	2794	1511	2782	1737	1737	4979	1	22	23	51
2373	HTNBJ15	203959 04/26/99	pBluescript SK-	2383	2792	1511	2763	1737	1737	4980	1	22	23	51
2374	HTNBJ15	203959 04/26/99	pBluescript SK-	2384	3351	1511	2764	1737	1737	4981	1	22	23	51
2375	HTNBJ15	203959 04/26/99	pBluescript SK-	2385	2794	1511	2765	1737	1737	4982	1	22	23	51
2376	HTOAC65	203918 04/08/99	Uni-ZAP XR	2386	1014	1	1014		551	4983	1	9	10	28
2377	HTOAE47	PTA-181 06/07/99	Uni-ZAP XR	2387	1382	1	1382	138	138	4984	1			15
2378	HTOAK03	203918 04/08/99	Uni-ZAP XR	2388	1282	1	1282	64	64	4985	1	49	50	51

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2379	HTOAO58	PTA-181 06/07/99	Uni-ZAP XR	2389	1637	1	1637	157	157	4986	1	13	14	34
2380	HTOAT56	203959 04/26/99	Uni-ZAP XR	2390	1522	1	1522		85	4987	1	19	20	118
2381	HTOBG07	203918 04/08/99	Uni-ZAP XR	2391	1344	1	1344		1123	4988	1			4
2382	HTOBG62	203918 04/08/99	Uni-ZAP XR	2392	1399	1	1399		90	4989	1	27	28	36
2383	HTODA92	PTA-181 06/07/99	Uni-ZAP XR	2393	3261	1346	3251		1525	4990	1	21	22	62
2384	HTODN35	203918 04/08/99	Uni-ZAP XR	2394	1594	1	1594	67	67	4991	1			14
2385	HTODO45	203918 04/08/99	Uni-ZAP XR	2395	1455	1	1455		502	4992	1			16
2386	HTOEA53	203918 04/08/99	Uni-ZAP XR	2396	2020	1	2020	56	56	4993	1	22	23	31
2387	HTOEB55	203918 04/08/99	Uni-ZAP XR	2397	1774	1	1774		139	4994	1	14	15	19
2388	HTOEB76	203918 04/08/99	Uni-ZAP XR	2398	1619	1	1619		325	4995	1			6

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2389	HTOET03	203917 04/08/99	Uni-ZAP XR	2399	1921	434	1897	518	518	4996	1			24
2390	HTOET03	203917 04/08/99	Uni-ZAP XR	2400	1920	434	1897	518	518	4997	1			24
2391	HTOEV01	203918 04/08/99	Uni-ZAP XR	2401	2206	1	2206		194	4998	1	7	8	46
2392	HTOFA11	203918 04/08/99	Uni-ZAP XR	2402	2597	1	2597	99	99	4999	1	18	19	43
2393	HTOFC33	203918 04/08/99	Uni-ZAP XR	2403	1075	1	1075		159	5000	1			23
2394	HTOGB79	203959 04/26/99	Uni-ZAP XR	2404	2778	1	2778	138	138	5001	1	19	20	40
2395	HTOHE22	203959 04/26/99	Uni-ZAP XR	2405	1904	1	1904		358	5002	1			14
2396	HTOHG63	203959 04/26/99	Uni-ZAP XR	2406	1918	773	1918	922	922	5003	1	31	32	37
2397	HTOHJ93	203918 04/08/99	Uni-ZAP XR	2407	1768	1	1768	86	86	5004	1			15
2398	HTOHM12	203918 04/08/99	Uni-ZAP XR	2408	2196	1	2196	100	100	5005	1	29	30	31
2399	HTOHM82	203959 04/26/99	Uni-ZAP XR	2409	1561	1	1561	26	26	5006	1	45	46	71

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2400	HTOHN40	203959 04/26/99	Uni-ZAP XR	2410	1963	1	1963	50	50	5007	1	21	22	34
2401	HTOHR59	203959 04/26/99	Uni-ZAP XR	2411	1300	1	1300	110	110	5008	1	18	19	37
2402	HTOHS29	203959 04/26/99	Uni-ZAP XR	2412	1146	1	1104	275	275	5009	1			14
2403	HTOID65	203918 04/08/99	Uni-ZAP XR	2413	1472	1	1472	56	56	5010	1	25	26	36
2404	HTOIE17	203959 04/26/99	Uni-ZAP XR	2414	1117	1	1117	99	99	5011	1	23	24	35
2405	HTOIG16	203959 04/26/99	Uni-ZAP XR	2415	1797	1	1797		160	5012	1	19	20	23
2406	HTOIH39	203959 04/26/99	Uni-ZAP XR	2416	1435	1	1435	215	215	5013	1	20	21	30
2407	HTOIH51	203959 04/26/99	Uni-ZAP XR	2417	1472	1	1472	296	296	5014	1	19	20	47
2408	HTOJB02	203918 04/08/99	Uni-ZAP XR	2418	1447	1	1447	107	107	5015	1	43	44	134
2409	HTOJJ26	203959 04/26/99	Uni-ZAP XR	2419	3003	838	3003	1034	1034	5016	1	16	17	48

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2410	HTOJP25	PTA-181 06/07/99	Uni-ZAP XR	2420	1524	1	1524	268	268	5017	1	18	19	33
2411	HTOJS23	203959 04/26/99	Uni-ZAP XR	2421	1842	1	1842		130	5018	1	18	19	53
2412	HTOJY56	203918 04/08/99	Uni-ZAP XR	2422	1895	1	1895	244	244	5019	1	26	27	33
2413	HTOJZ18	203959 04/26/99	Uni-ZAP XR	2423	1641	189	1641	234	234	5020	1	20	21	33
2414	HTPCG10	203959 04/26/99	Uni-ZAP XR	2424	1807	134	1445	145	145	5021	1	28	29	53
2415	HTPCO75	PTA-181 06/07/99	Uni-ZAP XR	2425	1467	1	1467		73	5022	1	23	24	40
2416	HTPCW21	203959 04/26/99	Uni-ZAP XR	2426	1293	1	1293	171	171	5023	1	35	36	60
2417	HTPDD68	203918 04/08/99	Uni-ZAP XR	2427	2068	175	2068	509	509	5024	1	24	25	31
2418	HTPDV75	203918 04/08/99	Uni-ZAP XR	2428	389	1	389	240	240	5025	1	18	19	47
2419	HTSER28	203979 04/29/99	pBluescript	2429	2027	1	1573	153	153	5026	1			13

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2420	HTSET62	203959 04/26/99	pBluescript	2430	1345	968	1345	1147	1147	5027	1	15	16	17
2421	HTSFV18	203918 04/08/99	pBluescript	2431	1093	1	1093	134	134	5028	1	41	42	50
2422	HTSGO13	203959 04/26/99	pBluescript	2432	1300	337	879	699	699	5029	1	9	10	49
2423	HTSGO88	203959 04/26/99	pBluescript	2433	798	1	798	249	249	5030	1			21
2424	HTTAH05	203918 04/08/99	Uni-ZAP XR	2434	1050	1	1050	39	39	5031	1	33	34	35
2425	HTTAP37	203918 04/08/99	Uni-ZAP XR	2435	1040	15	1040	104	104	5032	1	30	31	45
2426	HTTBJ38	PTA-181 06/07/99	Uni-ZAP XR	2436	2364	401	2329	585	585	5033	1			15
2427	HTTDB11	203959 04/26/99	Uni-ZAP XR	2437	524	65	524	130	130	5034	1	32	33	37
2428	HTTDG27	203918 04/08/99	Uni-ZAP XR	2438	711	1	711		277	5035	1	17	18	99
2429	HTTDN24	203959 04/26/99	Uni-ZAP XR	2439	1992	856	1992		1024	5036	1	13	14	234

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2430	HTTDO33	PTA-1838 05/09/00	Uni-ZAP XR	2440	1161	1	1161	22	22	5037	1	30	31	244
2431	HTTDT67	203918 04/08/99	Uni-ZAP XR	2441	1255	1	1255	44	44	5038	1	32	33	68
2432	HTTEO25	PTA-181 06/07/99	Uni-ZAP XR	2442	2204	1	2204		188	5039	1	30	31	57
2433	HTTEP11	203918 04/08/99	Uni-ZAP XR	2443	1409	1	1409		236	5040	1	5	6	7
2434	HTTES77	203918 04/08/99	Uni-ZAP XR	2444	2389	1084	2379	1133	1133	5041	1	20	21	40
2435	HTTFD29	PTA-181 06/07/99	Uni-ZAP XR	2445	1338	1	1338	52	52	5042	1	20	21	28
2436	HTTFG15	203918 04/08/99	Uni-ZAP XR	2446	1081	1	1081	30	30	5043	1	19	20	27
2437	HTWAMI9	203918 04/08/99	Lambda ZAP II	2447	1877	1	1877	160	160	5044	1			47
2438	HTWBF58	203918 04/08/99	pSport1	2448	1352	1	1332	111	111	5045	1	22	23	32
2439	HTWBO30	203918 04/08/99	pSport1	2449	773	1	773	137	137	5046	1	43	44	76

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2440	HTWBZ57	203959 04/26/99	pSport1	2450	1667	777	1658	990	990	5047	1	27	28	28
2441	HTWCC10	203918 04/08/99	pSport1	2451	1241	1	1241	244	244	5048	1	17	18	20
2442	HTWCE14	203959 04/26/99	pSport1	2452	1054	828	1036	892	892	5049	1	29	30	54
2443	HTWCT76	203918 04/08/99	pSport1	2453	1560	1	1560	143	143	5050	1			16
2444	HTWDJ17	203918 04/08/99	pSport1	2454	1390	1	1390	302	302	5051	1	22	23	318
2445	HTWDM89	203918 04/08/99	pSport1	2455	1472	1	1472	244	244	5052	1	16	17	24
2446	HTWEA05	PTA-181 06/07/99	pSport1	2456	893	1	893	198	198	5053	1	26	27	33
2447	HTWEG06	203959 04/26/99	pSport1	2457	1066	1	1066		132	5054	1	13	14	57
2448	HTWEQ36	203918 04/08/99	pSport1	2458	1436	1	1436	133	133	5055	1	20	21	32
2449	HTWFA21	203918 04/08/99	pSport1	2459	684	83	613	93	93	5056	1	29	30	46

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2450	HTWFA88	203918 04/08/99	pSport1	2460	1851	1	1851	293	293	5057	1	13	14	116
2451	HTWFM85	203918 04/08/99	pSport1	2461	1693	319	1693	680	680	5058	1	20	21	39
2452	HTWFO43	PTA-181 06/07/99	pSport1	2462	1298	1	1298	193	193	5059	1	20	21	30
2453	HTWLG39	PTA-181 06/07/99	Lambda ZAP II	2463	504	1	504	200	200	5060	1	28	29	32
2454	HTXAA20	203959 04/26/99	Uni-ZAP XR	2464	761	1	761	30	30	5061	1	29	30	50
2455	HTXAD75	203959 04/26/99	Uni-ZAP XR	2465	1924	1	1924		49	5062	1	19	20	41
2456	HTXAR92	203918 04/08/99	Uni-ZAP XR	2466	1600	1	1600	35	35	5063	1	15	16	26
2457	HTXBS38	203918 04/08/99	Uni-ZAP XR	2467	759	1	759	261	261	5064	1			16
2458	HTXBU88	203918 04/08/99	Uni-ZAP XR	2468	776	1	776	159	159	5065	1	18	19	34
2459	HTXCP27	PTA-1838 05/09/00	Uni-ZAP XR	2469	1573	1	1573		153	5066	1			15

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2460	HTXCU30	203918 04/08/99	Uni-ZAP XR	2470	1440	98	1440		221	5067	1			14
2461	HTXCV44	203918 04/08/99	Uni-ZAP XR	2471	1544	1	1544	181	181	5068	1	22	23	64
2462	HTXDJ21	203959 04/26/99	Uni-ZAP XR	2472	1335	15	1335		189	5069	1	27	28	42
2463	HTXDJ75	203918 04/08/99	Uni-ZAP XR	2473	1628	1	1628	253	253	5070	1	16	17	45
2464	HTXDJ85	203918 04/08/99	Uni-ZAP XR	2474	1957	1	1957		210	5071	1	25	26	27
2465	HTXDK09	203959 04/26/99	Uni-ZAP XR	2475	636	1	369	118	118	5072	1	29	30	31
2466	HTXDO17	203959 04/26/99	Uni-ZAP XR	2476	1320	1	1320	149	149	5073	1	46	47	56
2467	HTXDT72	203959 04/26/99	Uni-ZAP XR	2477	1521	1	1521	267	267	5074	1	10	11	70
2468	HTXDU08	203959 04/26/99	Uni-ZAP XR	2478	1103	1	1103	168	168	5075	1	26	27	34
2469	HTXDZ68	203959 04/26/99	Uni-ZAP XR	2479	968	1	968	323	323	5076	1	17	18	27
2470	HTXEN33	203918 04/08/99	Uni-ZAP XR	2480	1544	1	1544	151	151	5077	1	32	33	43

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2471	HTXES13	203959 04/26/99	Uni-ZAP XR	2481	677	1	677	179	179	5078	1	17	18	81
2472	HTXFD86	PTA-1838 05/09/00	Uni-ZAP XR	2482	1678	1	1678	132	132	5079	1			15
2473	HTXGK12	PTA-1838 05/09/00	Uni-ZAP XR	2483	1679	1	1393	102	102	5080	1			32
2474	HTXGL32	203917 04/08/99	Uni-ZAP XR	2484	1425	1	1425	113	113	5081	1	30	31	32
2475	HTXJD08	203918 04/08/99	Uni-ZAP XR	2485	1238	1	1238	192	192	5082	1			4
2476	HTXJD85	203959 04/26/99	Uni-ZAP XR	2486	1117	1	1117	211	211	5083	1	16	17	31
2477	HTXJE12	PTA-181 06/07/99	Uni-ZAP XR	2487	1640	1	1640	204	204	5084	1	22	23	83
2478	HTXJI59	PTA-791 09/27/99	Uni-ZAP XR	2488	2060	49	1195		1809	5085	1	6	7	12
2479	HTXJJ92	PTA-793 09/27/99	Uni-ZAP XR	2489	823	1	823	275	275	5086	1			9

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2480	HTXJM94	PTA-181 06/07/99	Uni-ZAP XR	2490	938	1	938	44	44	5087	1	46	47	73
2481	HTXJV54	203918 04/08/99	Uni-ZAP XR	2491	1896	1	1896	269	269	5088	1			9
2482	HTXJW06	203979 04/29/99	Uni-ZAP XR	2492	1494	511	1494	635	635	5089	1	19	20	129
2483	HTXKB57	203979 04/29/99	Uni-ZAP XR	2493	2836	570	2801	867	867	5090	1	16	17	61
2484	HTXKH22	203918 04/08/99	Uni-ZAP XR	2494	1073	1	1073		350	5091	1			12
2485	HTXKH40	203918 04/08/99	Uni-ZAP XR	2495	1290	1	1290	153	153	5092	1	21	22	46
2486	HTXKK76	PTA-181 06/07/99	Uni-ZAP XR	2496	1629	1	1629	54	54	5093	1	26	27	52
2487	HTXKL53	203959 04/26/99	Uni-ZAP XR	2497	1610	278	1610	1245	1245	5094	1	24	25	46
2488	HTXKS11	203918 04/08/99	Uni-ZAP XR	2498	1945	1	1945	133	133	5095	1	22	23	38
2489	HTXKS27	PTA-792 09/27/99	Uni-ZAP XR	2499	1455	1	1455	286	286	5096	1	20	21	55

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2490	HTXLC05	203959 04/26/99	Uni-ZAP XR	2500	743	1	743	295	295	5097	1	28	29	80
2491	HTXLC45	203959 04/26/99	Uni-ZAP XR	2501	715	1	715	359	359	5098	1	22	23	50
2492	HTXLT36	203959 04/26/99	Uni-ZAP XR	2502	1040	1	1038	189	189	5099	1			13
2493	HTXLY94	203959 04/26/99	Uni-ZAP XR	2503	3511	698	1568	893	893	5100	1	24	25	35
2494	HTXNV66	203959 04/26/99	Uni-ZAP XR	2504	2058	1	2058		674	5101	1	9	10	91
2495	HTXOL30	203959 04/26/99	Uni-ZAP XR	2505	840	1	840	272	272	5102	1			14
2496	HTXOW27	203959 04/26/99	Uni-ZAP XR	2506	2387	627	2372	1070	1070	5103	1	16	17	26
2497	HTXPD86	203959 04/26/99	Uni-ZAP XR	2507	2064	559	1458	900	900	5104	1	21	22	47
2498	HTXPT57	PTA-1838 05/09/00	Uni-ZAP XR	2508	1127	1	1127	93	93	5105	1	23	24	92
2499	HTYSJ88	203918 04/08/99	pBluescript	2509	772	1	772	44	44	5106	1	15	16	35

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2500	HUDBE20	203918 04/08/99	ZAP Express	2510	1014	1	1014	202	202	5107	1	33	34	39
2501	HUDBK47	203918 04/08/99	ZAP Express	2511	1642	1	1642	147	147	5108	1	36	37	39
2502	HUFAB57	203918 04/08/99	pSport1	2512	1534	1	1534	232	232	5109	1	17	18	38
2503	HUFAL17	203918 04/08/99	pSport1	2513	857	1	857	54	54	5110	1	13	14	32
2504	HUFAO92	203918 04/08/99	pSport1	2514	819	1	819	304	304	5111	1	12	13	73
2505	HUFAO94	203959 04/26/99	pSport1	2515	739	1	739	229	229	5112	1			13
2506	HUFAP33	203918 04/08/99	pSport1	2516	1537	1	1537	60	60	5113	1	23	24	328
2507	HUFAU71	203959 04/26/99	pSport1	2517	2146	887	2130	1041	1041	5114	1			31
2508	HUFBK95	203959 04/26/99	pSport1	2518	1384	1	1384	174	174	5115	1			16
2509	HUFBP77	203918 04/08/99	pSport1	2519	1374	1	1374	95	95	5116	1	22	23	109
2510	HUFBV62	203959 04/26/99	pSport1	2520	743	1	743	453	453	5117	1	23	24	31

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2511	HUFBY96	203959 04/26/99	pSport1	2521	736	1	736		334	5118	1	19	20	25
2512	HUFBN72	203918 04/08/99	pSport1	2522	803	1	803	253	253	5119	1	15	16	30
2513	HUFEF79	203959 04/26/99	pSport1	2523	1010	1	1010	201	201	5120	1			20
2514	HUKAD46	203918 04/08/99	Lambda ZAP II	2524	1554	1	1554	200	200	5121	1	43	44	50
2515	HUKAI28	203979 04/29/99	Lambda ZAP II	2525	1700	1	1700	61	61	5122	1	15	16	32
2516	HUKAO50	203959 04/26/99	Lambda ZAP II	2526	2058	730	2058	815	815	5123	1			6
2517	HUKCS86	203959 04/26/99	Lambda ZAP II	2527	1781	32	1773	201	201	5124	1	20	21	232
2518	HUKCS86	203959 04/26/99	Lambda ZAP II	2528	1781	32	1773	201	201	5125	1	20	21	232
2519	HUKEA22	203959 04/26/99	Lambda ZAP II	2529	575	1	575	63	63	5126	1	17	18	36
2520	HUKEL79	203959 04/26/99	Lambda ZAP II	2530	646	1	646	94	94	5127	1	20	21	28
2521	HUKEX37	203959 04/26/99	Lambda ZAP II	2531	529	1	529		220	5128	1	18	19	23

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2522	HUKFC71	203979 04/29/99	Lambda ZAP II	2532	963	1	963	260	260	5129	1			9
2522	HUKFC71	203979 04/29/99	Lambda ZAP II	2607	1177	1	973	261	261	5204	1			9
2523	HUKFV37	203979 04/29/99	Lambda ZAP II	2533	1574	20	1531	49	49	5130	1	45	46	224
2524	HUKFY09	203979 04/29/99	Lambda ZAP II	2534	2735	1	957	237	237	5131	1			13
2525	HUNAL39	203918 04/08/99	pBluescript SK-	2535	1121	1	1121	830	830	5132	1			10
2526	HUSAO04	PTA-791 09/27/99	Lambda ZAP II	2536	1971	24	1664		3	5133	1	1	2	486
2527	HUSAO04	PTA-791 09/27/99	Lambda ZAP II	2537	1971	24	1664		297	5134	1	15	16	388
2528	HUSCA09	PTA-181 06/07/99	Lambda ZAP II	2538	1986	1	1986		101	5135	1	38	39	510
2529	HUSCJ01	203918 04/08/99	Lambda ZAP II	2539	1340	1	1340	205	205	5136	1			16
2530	HUSGB23	203959 04/26/99	pSport1	2540	719	1	718	168	168	5137	1	19	20	37

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2531	HUSGJ09	203918 04/08/99	pSport1	2541	688	1	688	191	191	5138	1	23	24	32
2532	HUSGQ57	203918 04/08/99	pSport1	2542	1940	1	1940	73	73	5139	1			34
2533	HUSGY15	203918 04/08/99	pSport1	2543	1526	299	1526	643	643	5140	1			22
2534	HUSHD41	PTA-181 06/07/99	Lambda ZAP II	2544	2576	1	2576	227	227	5141	1	19	20	72
2535	HUSHK65	203979 04/29/99	Lambda ZAP II	2545	6705	768	2758	812	812	5142	1	21	22	487
2536	HUSIK45	PTA-181 06/07/99	pSport1	2546	1415	1	1415	204	204	5143	1	20	21	33
2537	HUSIO57	PTA-793 09/27/99	pSport1	2547	925	1	925		177	5144	1	20	21	41
2538	HUSIP17	203918 04/08/99	pSport1	2548	699	1	699		301	5145	1	22	23	26
2539	HUSIR70	203959 04/26/99	pSport1	2549	1236	1	1236	281	281	5146	1	23	24	26
2540	HUSXP50	203918 04/08/99	pSport1	2550	413	1	413	42	42	5147	1	29	30	52

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2541	HUSXY93	203918 04/08/99	pSport1	2551	639	1	639	148	148	5148	1			19
2542	HUSYG26	203959 04/26/99	pSport1	2552	744	363	744	421	421	5149	1	28	29	69
2543	HUVCQ68	203918 04/08/99	Uni-ZAP XR	2553	678	1	678	265	265	5150	1	17	18	25
2544	HUVDG58	PTA-1838 05/09/00	Uni-ZAP XR	2554	2785	1	2785	27	27	5151	1	28	29	38
2545	HUVEG53	203959 04/26/99	Uni-ZAP XR	2555	2163	151	2163		366	5152	1	12	13	22
2546	HWAAH11	203959 04/26/99	pCMVSPORT 3.0	2556	1278	1	1278	479	479	5153	1	39	40	92
2547	HWAAQ28	203959 04/26/99	pCMVSPORT 3.0	2557	1649	34	1649	443	443	5154	1	26	27	87
2548	HWAA Y60	203918 04/08/99	pCMVSPORT 3.0	2558	1727	464	1727	488	488	5155	1			25
2549	HWABR43	203959 04/26/99	pCMVSPORT 3.0	2559	2314	1	2314	258	258	5156	1	15	16	31
2550	HWACH06	203959 04/26/99	pCMVSPORT 3.0	2560	1161	1	1161	318	318	5157	1			15

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2551	HWACZ33	203959 04/26/99	pCMVSPORT 3.0	2561	1462	1	1462		110	5158	1	22	23	62
2552	HWADV90	PTA-1838 05/09/00	pCMVSPORT 3.0	2562	2393	1	2393	314	314	5159	1			22
2553	HWAEBS2	PTA-792 09/27/99	pCMVSPORT 3.0	2563	2193	1	2193	212	212	5160	1	23	24	405
2554	HWBAK71	PTA-181 06/07/99	pCMVSPORT 3.0	2564	372	1	372	260	260	5161	1	15	16	17
2555	HWBBU75	203979 04/29/99	pCMVSPORT 3.0	2565	2731	623	2731	783	783	5162	1	22	23	51
2556	HWBCN81	PTA-181 06/07/99	pCMVSPORT 3.0	2566	2783	1	2783	615	615	5163	1	32	33	60
2557	HWBCP16	203959 04/26/99	pCMVSPORT 3.0	2567	625	1	625	140	140	5164	1	36	37	54
2558	HWBCX93	PTA-181 06/07/99	pCMVSPORT 3.0	2568	831	1	831	261	261	5165	1	28	29	30
2559	HWBEF34	203979 04/29/99	pCMVSPORT 3.0	2569	1468	1	1468	134	134	5166	1	31	32	44

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2560	HWFB23	PTA-181 06/07/99	pBluescript SK-	2570	1411	1	1411	40	40	5167	1	29	30	38
2561	HWFB140	203918 04/08/99	pBluescript SK-	2571	875	1	875	315	315	5168	1			17
2562	HWHGV77	203959 04/26/99	pCMVSPORT 3.0	2572	1026	213	1026	660	660	5169	1	17	18	34
2563	HWHGW09	203959 04/26/99	pCMVSPORT 3.0	2573	596	1	596	268	268	5170	1	23	24	61
2564	HWHHA21	203959 04/26/99	pCMVSPORT 3.0	2574	695	1	695	213	213	5171	1	47	48	61
2565	HWHPU44	203959 04/26/99	pCMVSPORT 3.0	2575	871	1	871	166	166	5172	1	28	29	40
2566	HWHRC51	PTA-181 06/07/99	pCMVSPORT 3.0	2576	843	1	843		148	5173	1	20	21	59
2567	HWLAT50	203959 04/26/99	pSport1	2577	2973	2488	2932	2741	2741	5174	1			11
2568	HWLBO67	203959 04/26/99	pSport1	2578	536	1	536	42	42	5175	1	28	29	39
2569	HWLGP26	203959 04/26/99	pSport1	2579	1898	1007	1835	1091	1091	5176	1	23	24	71

Gene No.	cDNA Clone ID	ATCC Deposit No. Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2570	HWLHO31	203959 04/26/99	pSport1	2580	1701	1	1701	183	183	5177	1			10
2571	HWLIL31	203959 04/26/99	pSport1	2581	787	1	787		531	5178	1	31	32	39
2572	HWLIN08	203959 04/26/99	pSport1	2582	1030	1	1030	594	594	5179	1	23	24	31
2573	HWLRE03	203959 04/26/99	pSport1	2583	2770	2287	2770	2526	2526	5180	1			20
2574	HWTAM38	203918 04/08/99	Uni-ZAP XR	2584	598	245	598	377	377	5181	1	17	18	74
2575	HWTAW58	203959 04/26/99	Uni-ZAP XR	2585	2306	1432	2306		1523	5182	1			13
2576	HWTBB42	203959 04/26/99	Uni-ZAP XR	2586	91	1	91		33	5183	1			10
2577	HWTBC75	PTA-181 06/07/99	Uni-ZAP XR	2587	699	1	699	228	228	5184	1	25	26	44
2578	HWTBI25	203918 04/08/99	Uni-ZAP XR	2588	338	1	338	197	197	5185	1	21	22	33
2579	HWTBL86	203959 04/26/99	Uni-ZAP XR	2589	2789	2179	2789	2270	2270	5186	1			38

Gene No.	cDNA Clone ID	ATCC Deposit No.Z and Date	Vector	NT SEQ ID NO: X	Total NT Seq.	5' NT of Clone Seq.	3' NT of Clone Seq.	5' NT of Start Codon	5' NT of First AA of Signal Pep	AA SEQ ID NO: Y	First AA of Sig Pep	Last AA of Sig Pep	First AA of Secreted Portion	Last AA of ORF
2580	HWTBX66	203959 04/26/99	Uni-ZAP XR	2590	1145	1	1145		261	5187	1	11	12	271
2581	HYAAC74	203918 04/08/99	pCMVSPORT 3.0	2591	592	1	592	197	197	5188	1	18	19	38
2582	HYAAD61	PTA-1838 05/09/00	pCMVSPORT 3.0	2592	2230	1	2230	341	341	5189	1			18
2583	HYACC21	203959 04/26/99	pCMVSPORT 3.0	2593	1223	1	1223	461	461	5190	1	17	18	31
2584	HYBAP75	PTA-181 06/07/99	Uni-ZAP XR	2594	1168	1	1168		166	5191	1	26	27	37
2585	HYBAQ24	PTA-1838 05/09/00	Uni-ZAP XR	2595	1193	1	1193	261	261	5192	1	33	34	68
2586	HYBAW56	203918 04/08/99	Uni-ZAP XR	2596	584	1	584	116	116	5193	1	18	19	50
2587	HYBBD81	203918 04/08/99	Uni-ZAP XR	2597	896	1	896	151	151	5194	1	11	12	22

TABLE 1B

Gene No:	Clone ID NO: Z	Contig ID:	SEQ ID NO: X	ORF (From-To)	AA SEQ ID NO: Y	Predicted Epitopes	Tissue Distribution Library code: count (see Table 4 for Library Codes)	Cytologic Band	OMIM Disease Reference(s):
1	H2CBD20	570796	11	27 - 80	2608	Gln-1 to Asp-6.	T0110: 1 and L0776: 1.		
2	H2CBH91	826669	12	309 - 431	2609	Met-1 to Lys-12.	AR089: 3, AR316: 3, AR060: 3 L0764: 3, L0746: 2, L0749: 2, L0777: 2, S0114: 1, H0661: 1, H0497: 1, H0036: 1, T0110: 1, H0412: 1, L0520: 1, L0631: 1, L0796: 1, L0373: 1, L0766: 1, L0806: 1, L0776: 1, L0789: 1, L0666: 1, L0742: 1, L0745: 1, L0731: 1, L0485: 1 and L0608: 1.	8p22-q21.2	148370, 238600, 238600, 238600, 238600, 600143, 601385, 602629
3	H2LBA54	684290	13	386 - 403	2610		L0766: 5, L0439: 5, L0803: 4, L0666: 4, H0556: 3, S0360: 3, H0591: 3, L0809: 3, L0754: 3, L0750: 3, L0777: 3, H0392: 2, H0553: 2, L0771: 2, L0662: 2, L0794: 2, L0806: 2, L0748: 2, L0749: 2, L0779: 2, L0759: 2, H0707: 2, S0026: 2, H0171: 1, H0450: 1, H0125: 1, S0376: 1, H0637: 1, H0580: 1, S0045: 1, S0222: 1, H0431: 1, H0497: 1, H0333: 1, H0013: 1, H0635: 1, H0599: 1, H0581: 1, T0115: 1, L0471: 1, H0051: 1, S0022: 1, L0142: 1, H0674: 1, H0038: 1, H0634: 1, H0616: 1, S0386: 1, H0625: 1, H0646: 1, L0804: 1, L0774: 1, L0805: 1, L0655: 1, L0559: 1, L0526: 1, L0790: 1, L0663: 1, H0519: 1, H0593: 1, H0684: 1, H0659: 1, H0670: 1, L0755: 1, L0731: 1, H0445: 1.	6q21	120110, 121014, 601666, 602772

4	H2LBB09	658667	14	197 - 307	2611	Lys-28 to Thr-33.	1, L0605: 1, L0599: 1, L0608: 1, L0601: 1, H0543: 1 and S0424: 1. AR089: 5, AR316: 5, AR060: 4 L0773: 7, S0410: 6, L0803: 6, L0752: 5, S0358: 4, L0766: 4, L0439: 4, L0646: 3, L0659: 3, S0442: 2, S0408: 2, S0003: 2, H0038: 2, S0440: 2, L0774: 2, L0655: 2, L0666: 2, L0664: 2, L0665: 2, H0521: 2, L0748: 2, L0740: 2, L0777: 2, L0731: 2, L0758: 2, L0362: 2, H0170: 1, S0116: 1, H0402: 1, S0444: 1, S0360: 1, S0476: 1, L0717: 1, H0574: 1, H0632: 1, T0109: 1, H0156: 1, H0590: 1, S0346: 1, H0052: 1, T0115: 1, H0597: 1, H0050: 1, S0051: 1, H0622: 1, L0483: 1, H0553: 1, H0032: 1, H0412: 1, L0351: 1, H0529: 1, L0761: 1, L0772: 1, L0794: 1, L0807: 1, S0374: 1, H0435: 1, H0539: 1, H0518: 1, S0152: 1, S0392: 1, S0436: 1, H0653: 1, H0423: 1 and H0506: 1.	14q21.1-q21.3	182600, 232700, 602086
5	H2LBB09	830636	15	236 - 346	2612	Lys-28 to Thr-33.	AR089: 5, AR316: 5, AR060: 4 L0773: 7, S0410: 6, L0803: 6, L0752: 5, S0358: 4, L0766: 4, L0439: 4, L0646: 3, L0659: 3, S0442: 2, S0408: 2, S0003: 2, H0038: 2, S0440: 2, L0774: 2, L0655: 2, L0666: 2, L0664: 2, L0665: 2, H0521: 2, L0748: 2, L0740: 2, L0777: 2, L0731: 2, L0758: 2, L0362: 2, H0170: 1, S0116: 1, H0402: 1, S0444: 1, S0360: 1, S0476: 1, L0717: 1.	14q21.1-q21.3	182600, 232700, 602086

6	H2MAC63	610045	16	172 - 270	2613			1, H0574: 1, H0632: 1, T0109: 1, H0156: 1, H0590: 1, S0346: 1, H0052: 1, T0115: 1, H0597: 1, H0050: 1, S0051: 1, H0622: 1, L0483: 1, H0553: 1, H0032: 1, H0412: 1, L0351: 1, H0529: 1, L0761: 1, L0772: 1, L0794: 1, L0807: 1, S0374: 1, H0435: 1, H0539: 1, H0518: 1, S0152: 1, S0392: 1, S0436: 1, H0653: 1, H0423: 1 and H0506: 1.		
7	H2MBA76	826161	17	717 - 1055	2614			L0601: 3, L0794: 2, H0458: 1, T0104: 1, H0617: 1, L0772: 1, L0764: 1, L0659: 1, L0663: 1 and L0758: 1.	11	
								AR270: 8, AR061: 7, AR060: 5, AR238: 5, AR269: 5, AR268: 5, AR182: 5, AR286: 5, AR296: 4, AR290: 4, AR233: 4, AR237: 4, AR293: 4, AR253: 4, AR291: 4, AR183: 4, AR226: 4, AR298: 4, AR186: 3, AR316: 3, AR232: 3, AR266: 3, AR289: 3, AR039: 3, AR089: 3, AR299: 3, AR292: 2, AR205: 2, AR240: 2, AR267: 2, AR033: 2, AR285: 2, AR247: 1, AR284: 1, AR104: 1, AR313: 1, AR315: 1, AR179: 1, AR281: 1, AR096: 1, AR277: 1, AR295: 1, H0618: 5, H0584: 4, H0617: 4, L0775: 3, L0748: 3, L0758: 3, H0657: 2, S0250: 2, L0764: 2, L0794: 2, L0381: 2, H0556: 2.		

8	H2MBF60	695714	18	320 - 442	2615			1, S0376: 1, H0351: 1, H0609: 1, H0586: 1, T0109: 1, H0046: 1, H0050: 1, H0012: 1, H0620: 1, H0594: 1, H0687: 1, H0412: 1, H0100: 1, S0448: 1, S0426: 1, L0770: 1, L0769: 1, L0772: 1, L0771: 1, L0662: 1, L0766: 1, L0378: 1, L0367: 1, L0663: 1, H0672: 1, S0378: 1, S0152: 1, H0522: 1, H0555: 1, L0777: 1, S0276: 1 and H0423: 1.	5q11.2-q13.1	126060, 143200, 143200, 181510, 214300, 253200, 600354, 600354, 600354, 600887
								L0748: 22, H0616: 6, L0766: 5, L0439: 4, L0731: 4, L0471: 3, S0214: 3, L0665: 3, H0134: 3, S0027: 3, L0777: 3, L0757: 3, L0588: 3, H0556: 2, S0116: 2, H0341: 2, S0212: 2, H0024: 2, S0003: 2, H0038: 2, L0769: 2, L0389: 2, L0809: 2, L0666: 2, L0745: 2, L0749: 2, L0750: 2, L0755: 2, L0758: 2, L0759: 2, H0445: 2, L0594: 2, L0362: 2, H0220: 1, H0686: 1, T0049: 1, H0176: 1, H0125: 1, S0376: 1, S0444: 1, H0580: 1, H0208: 1, S0300: 1, S0222: 1, H0574: 1, H0486: 1, T0040: 1, T0109: 1, H0427: 1, H0575: 1, H0274: 1, H0581: 1, H0052: 1, H0596: 1, H0597: 1, H0546: 1, S0362: 1, H0373: 1, H0428: 1, S0364: 1, H0551: 1, T0067: 1, H0494: 1, H0130: 1, L0763: 1, L0770: 1, L0646: 1, L0800: 1, L0643: 1, L0645: 1, L0767: 1, L0768: 1, L0774: 1, L0775: 1, L0806: 1, L0659: 1, L0517: 1, L0647: 1, L0789: 1, L0663: 1, L0664: 1, S0374: 1, H0520: 1, H0547: 1, H0519: 1, H0593: 1, H0659:		

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9	H6BSM88	609832	19	95 - 217	2616				L0794: 5, L0659: 4, L0758: 4, H0616: 2, L0662: 2, L0766: 2, L0804: 2, L0777: 2, L0759: 2, S6024: 1, H0656: 1, H0341: 1, S0356: 1, S0358: 1, H0440: 1, S0222: 1, H0497: 1, H0492: 1, H0318: 1, H0052: 1, H0046: 1, H0457: 1, H0123: 1, H0266: 1, H0124: 1, H0316: 1, H0038: 1, H0040: 1, H0551: 1, L0640: 1, L0637: 1, L0761: 1, L0375: 1, L0655: 1, L0783: 1, L0789: 1, H0547: 1, H0648: 1, H0672: 1, L0740: 1, H0445: 1, L0681: 1, S0276: 1 and S0196: 1.			
10	H6EEA48	847111	20	196 - 936	2617	Pro-21 to Trp-27, Thr-33 to Pro-39, Pro-62 to Trp-78, Pro-86 to Phe-91, Thr-109 to Ser-114.			AR202: 94, AR194: 93, AR246: 89, AR206: 80, AR039: 71, AR281: 70, AR205: 67, AR198: 60, AR243: 59, AR241: 59, AR315: 58, AR244: 58, AR204: 56, AR310: 46, AR192: 46, AR053: 45, AR280: 44, AR283: 44, AR282: 43, AR266: 43, AR274: 43, AR314: 42, AR289: 41, AR265: 40, AR271: 40, AR033: 40, AR263: 40, AR299: 39, AR213: 38, AR284: 38, AR052: 38, AR096: 38, AR275: 38, AR295: 37, AR104: 37, AR273: 36, AR240: 35, AR186: 35,			

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11	H6EEN71	829201	21	1434 - 1517	2618				1, H0647: 1, S0144: 1, L0639: 1, L0372: 1, L0800: 1, L0644: 1, L0766: 1, L0803: 1, L0382: 1, L0787: 1, L0788: 1, L0663: 1, S0374: 1, H0547: 1, H0593: 1, H0521: 1, H0522: 1, S0314: 1, S0027: 1, L0740: 1, L0751: 1, L0746: 1, L0749: 1, L0779: 1, L0757: 1 and S0436: 1.		
									L0766: 22, L0776: 17, L0439: 17, L0747: 16, L0752: 16, L0770: 14, L0754: 14, L0438: 12, L0750: 11, L0744: 10, L0769: 9, L0748: 9, L0759: 9, L0774: 8, L0731: 8, L0601: 8, L0764: 7, L0777: 7, L0755: 7, L0757: 7, H0585: 6, L0805: 6, L0749: 6, H0370: 5, L0803: 5, L0666: 5, L0740: 5, S0360: 4, L0751: 4, L0758: 4, H0556: 3, H0716: 3, H0295: 3, H0663: 3, H0618: 3, H0620: 3, S0022: 3, H0673: 3, H0412: 3, H0100: 3, L0768: 3, L0794: 3, L0659: 3, L0741: 3, L0745: 3, L0593: 3, H0685: 2, S0420: 2, S0007: 2, S0476: 2, S0222: 2, H0559: 2, H0253: 2, H0052: 2, H0188: 2, H0622: 2, T0006: 2, S0366: 2, H0135: 2, H0038: 2, H0616: 2, H0494: 2, S0440: 2, H0509: 2, S0344: 2, L0763: 2, L0639: 2, L0772: 2, L0651: 2, L0806: 2, L0783: 2, L0809: 2, L0664: 2, S0406: 2, L0756: 2, L0779: 2, L0753: 2, L0588: 2, L0605: 2, L0592: 2, L0594: 2, L0362: 2, L0603: 2, S0276: 2, H0624: 1, H0686: 1, S0040: 1, H0713: 1, T0049: 1, S0116: 1.		

12	H6EEO05	865424	22	190 - 525	2619	Pro-7 to Pro-17, Cys-57 to Asn-65, Leu-80 to Asp-85.	H0341: 1, S0212: 1, H0484: 1, H0661: 1, S0442: 1, S0358: 1, S0376: 1, S0444: 1, H0208: 1, S0045: 1, S0046: 1, H0619: 1, H0550: 1, H0586: 1, H0587: 1, H0574: 1, T0040: 1, L0021: 1, H0599: 1, H0706: 1, H0318: 1, H0421: 1, H0251: 1, H0546: 1, H0545: 1, H0046: 1, H0041: 1, H0572: 1, L0471: 1, H0012: 1, H0024: 1, H0014: 1, H0375: 1, H0266: 1, H0687: 1, H0292: 1, S0338: 1, S0340: 1, H0030: 1, H0031: 1, H0166: 1, S0364: 1, H0388: 1, L0456: 1, H0598: 1, H0040: 1, H0551: 1, H0264: 1, H0413: 1, H0059: 1, T0042: 1, H0560: 1, H0561: 1, S0438: 1, S0002: 1, H0529: 1, L0796: 1, L3904: 1, L5575: 1, L0667: 1, L0372: 1, L0646: 1, L0800: 1, L0773: 1, L0648: 1, L0662: 1, L0767: 1, L0804: 1, L0775: 1, L0375: 1, L0378: 1, L0653: 1, L0807: 1, L0658: 1, L0384: 1, L0382: 1, L0790: 1, L0665: 1, H0699: 1, S0374: 1, H0520: 1, H0547: 1, S0126: 1, H0658: 1, H0670: 1, H0666: 1, S0328: 1, H0539: 1, S0380: 1, H0710: 1, H0522: 1, H0479: 1, L0746: 1, L0780: 1, H0445: 1, L0581: 1, S0026: 1, H0543: 1, S0424: 1, S0462: 1 and H0008: 1. L0748: 11, L0747: 9, L0749: 7, L0439: 6, L0599: 5, L0779: 4, L0757: 4, L0758: 4, L0662: 3, L0766: 3, L0774: 3, L0659: 3, L0751: 3, L0750: 3, S0358: 2, H0431: 2, H0622: 2, L0637:	
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13	H6EEU40	757048	23	175 - 318	2620	AR089: 36, AR316: 31, AR060: 27 L0741: 8, H0677: 7, L0439: 6, H0052: 5, H0494: 5, L0747: 5, S0007: 4, H0521: 4, H0543: 4, H0009: 3, L0771: 3, L0775: 3, L0663: 3, L0665: 3, L0438: 3, H0547: 3, H0436: 3, L0742: 3, L0748: 3, L0751: 3, H0556: 2, H0255: 2, S0420: 2, S0358: 2, S0046: 2, L0717: 2, S0222: 2, H0333: 2, H0559: 2, H0318: 2, H0581: 2, H0545: 2, H0620: 2, H0024: 2, H0266: 2, H0617: 2, H0529: 2, L0662: 2, L0653: 2, L0659: 2, L0809: 2, L0664:	2, L0375: 2, L0776: 2, L0666: 2, H0648: 2, H0672: 2, S3014: 2, L0741: 2, L0740: 2, L0731: 2, T0002: 1, S0040: 1, S6024: 1, S0116: 1, H0664: 1, S0418: 1, S0360: 1, S0046: 1, L0717: 1, S6016: 1, H0331: 1, H0632: 1, H0559: 1, H0486: 1, H0013: 1, S0010: 1, H0318: 1, S0049: 1, H0434: 1, L0041: 1, L0471: 1, S0362: 1, H0051: 1, S0388: 1, S6028: 1, H0266: 1, H0687: 1, H0615: 1, S0364: 1, H0551: 1, H0272: 1, S0038: 1, H0100: 1, L0351: 1, H0560: 1, S0438: 1, H0509: 1, H0652: 1, S0142: 1, S0344: 1, S0426: 1, L0769: 1, L0638: 1, L0667: 1, L0373: 1, L0372: 1, L0764: 1, L0771: 1, L0648: 1, L0521: 1, L0363: 1, L0803: 1, L0650: 1, L0775: 1, L0788: 1, L0664: 1, H0660: 1, L0743: 1, L0753: 1, L0480: 1, L0595: 1 and S0460: 1.	11cen-q12.3	
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14	H7TDB54	845956	24	86 - 229	2621	Gln-21 to Gly-26, Cys-30 to Ser-38.	L0740: 8, L0748: 7, L0749: 6, L0805: 4, L0438: 4, S0426: 3, L0766: 3, L0752: 3, H0657: 2, S0474: 2, L0804: 2, L0659: 2, L0809: 2, H0521: 2, S3014: 2, L0439: 2, L0754: 2, L0779: 2, L0592: 2, L0608: 2, S0202: 2,							

15	H7TMB95	597427	25	275 - 352	2622				1, T0002: 1, S0040: 1, S0444: 1, S0360: 1, T0008: 1, H0329: 1, H0592: 1, H0486: 1, L0021: 1, H0123: 1, H0373: 1, H0266: 1, H0188: 1, S0003: 1, S0214: 1, H0553: 1, H0090: 1, H0591: 1, H0551: 1, S0438: 1, L0772: 1, L0372: 1, L0662: 1, L0794: 1, L5564: 1, L0803: 1, L0774: 1, L0655: 1, L0527: 1, L0783: 1, L0790: 1, L0666: 1, H0658: 1, H0522: 1, H0696: 1, S0406: 1, S0037: 1, L0751: 1, L0745: 1, L0753: 1, H0445: 1, S0026: 1 and H0352: 1.		
16	HAAAT06	897933	26	329 - 643	2623				S0184: 2 AR053: 21, AR213: 20, AR240: 19, AR096: 18, AR052: 16, AR183: 15, AR243: 15, AR312: 14, AR313: 12, AR270: 11, AR265: 11, AR246: 11, AR241: 11, AR309: 10, AR282: 10, AR247: 10, AR268: 10, AR290: 9, AR055: 9, AR269: 9, AR310: 9, AR274: 9, AR263: 8, AR244: 8, AR273: 8, AR184: 7, AR271: 6, AR275: 6, AR182: 5, AR033: 5, AR267: 5, AR192: 5, AR284: 5, AR198: 4, AR300: 4, AR299: 4, AR175: 4, AR206: 4, AR229: 4, AR186: 4, AR104: 4, AR316: 4, AR039: 4, AR238: 3, AR204: 3, AR277: 3, AR237: 3, AR234: 3,		

AR231: 3, AR293: 3, AR205: 3, AR289: 3, AR179: 3, AR295: 3, AR177: 3, AR285: 3, AR249: 3, AR292: 3, AR296: 3, AR232: 2, AR089: 2, AR291: 2, AR298: 2, AR266: 2, AR286: 2, AR185: 2, AR258: 2, AR061: 2, AR233: 2, AR259: 2, AR060: 2, AR283: 2, AR227: 2, AR226: 2, AR194: 2, AR294: 1, AR314: 1, AR253: 1, AR256: 1, AR219: 1 L0752: 10, L0471: 9, L0731: 9, H0422: 9, L0748: 6, H0556: 5, H0040: 5, L0641: 5, L0766: 5, L0439: 5, L0749: 5, H0543: 5, H0620: 4, H0264: 4, L0662: 4, L0755: 4, S0114: 3, S0360: 3, H0599: 3, H0024: 3, H0135: 3, L0747: 3, L0757: 3, L0759: 3, H0445: 3, H0423: 3, H0265: 2, S0116: 2, H0341: 2, H0013: 2, H0244: 2, H0581: 2, H0050: 2, L0456: 2, L0769: 2, L0639: 2, L0761: 2, L0649: 2, L0774: 2, L0775: 2, L0776: 2, L0384: 2, L0663: 2, L0665: 2, H0144: 2, L0565: 2, H0658: 2, H0539: 2, H0436: 2, L0744: 2, L0750: 2, L0779: 2, L0758: 2, S0134: 1, H0657: 1, H0656: 1, S0212: 1, S0400: 1, S0420: 1, S0046: 1, S0476: 1, H0619: 1, H0393: 1, L0717: 1, S0220: 1, H0486: 1, H0706: 1, L0563: 1, H0545: 1, H0150: 1, H0009: 1, T0010:

								1, H0354: 1, H0271: 1, H0292: 1, H0284: 1, H0286: 1, H0028: 1, H0615: 1, H0622: 1, T0023: 1, H0553: 1, H0616: 1, H0413: 1, L0351: 1, S0438: 1, H0646: 1, S0208: 1, L0796: 1, L0667: 1, L0644: 1, L0764: 1, L0768: 1, L0654: 1, L0655: 1, L0606: 1, L0634: 1, L0659: 1, L0809: 1, L0367: 1, L0791: 1, L0793: 1, L0666: 1, L0438: 1, H0520: 1, H0519: 1, H0689: 1, H0684: 1, H0666: 1, H0672: 1, S0378: 1, H0631: 1, L0741: 1, L0756: 1, S0260: 1, L0599: 1, L0595: 1, S0242: 1 and H0542: 1.				
17	HACAD42	634372	27	683 - 742	2624	Gly-8 to Ala-13.	AR060: 6, AR316: 4, AR089: 3 L0769: 5, L0741: 3, L0756: 3, L0806: 2, L0438: 2, S6022: 1, L0520: 1, L0770: 1, L0792: 1, H0144: 1 and S0260: 1.					
18	HACBJ11	797625	28	1060 - 1311	2625	Ser-16 to Glu-31.	H0494: 15, L0747: 11, H0586: 10, H0587: 7, L0809: 5, H0600: 4, L0518: 4, L0653: 3, L0743: 3, H0592: 2, H0264: 2, L0648: 2, L0517: 2, S0328: 2, L0744: 2, H0295: 1, S0356: 1, S0132: 1, H0549: 1, S0280: 1, L0021: 1, L0041: 1, H0050: 1, L0455: 1, H0087: 1, H0379: 1, H0477: 1, S0448: 1, L0764: 1, L0806: 1, L0805: 1, L0783: 1, L0789: 1, L0790: 1, S0350: 1, H0696: 1, S0432: 1, L0731: 1, S0384: 1 and S0456: 1.					
19	HACBS86	603946	29	654 - 968	2626		AR296: 53, AR269: 43, AR291: 30, AR268: 30, AR298: 30, AR285: 30, AR253: 28, AR192: 28,					

[illegible]

[illegible]

20	HACBT91	789939	30	329 - 508	2627	Ser-49 to Lys-59.	<p>L0766: 14, L0740: 7, L0761: 6, L0789: 6, L0776: 5, L0779: 5, L0769: 4, L0803: 4, L0806: 4, S0328: 3, L0439: 3, L0754: 3, L0750: 3, L0777: 3, L0731: 3, L0759: 3, S0116: 2, H0486: 2, H0046: 2, L0455: 2, L0772: 2, L0764: 2, L0805: 2, L0665: 2, L0438: 2, H0521: 2, S0404: 2, L0752: 2, L0758: 2, L0596: 2, L0599: 2, L0593: 2, H0556: 1, L0785: 1, S0110: 1, S0356: 1, S0444: 1, S0360: 1, H0637: 1, S0278: 1, H0013: 1, S0280: 1, H0706: 1, H0563: 1, H0083: 1, S0312: 1, S0314: 1, S0003: 1, H0553: 1, H0628: 1, H0634: 1, H0102: 1, H0561: 1, L0796: 1, L0771: 1, L0533: 1, L0774: 1, L0775: 1, L0657: 1, L0792: 1, L0663: 1, H0699: 1, H0539: 1, H0436: 1, H0627: 1, L0747: 1, L0786: 1, H0445: 1, H0343: 1, S0026: 1, H0543: 1 and H0352: 1.</p>	<p>AR089: 18, AR316: 17, AR060: 17 S0410: 14, L0743: 6, L0665: 5, H0521: 3, H0341: 2, H0069: 2, H0271: 2, S0440: 2, L0761: 2, S0406: 2, L0747: 2, L0756: 2, H0664: 1, S0356: 1, H0734: 1, H0619: 1, H0586: 1, H0635: 1, S0280: 1, T0048: 1, H0581: 1, H0105: 1, H0264: 1, H0494: 1, H0641: 1, H0646: 1, L0770: 1, L0637: 1, L0800: 1, L0773: 1, L0648: 1, L0662: 1, L0768: 1, L0766: 1, L0649: 1, L0375: 1, L0784: 1, L0806: 1, L0655: 1.</p>	17	
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21	HACBZ73	832528	31	105 - 215	2628				1, L0809: 1, H0435: 1, H0672: 1, H0555: 1, L0749: 1, L0750: 1, H0445: 1, S0434: 1 and H0506: 1. AR060: 10, AR316: 9, AR089: 8 H0617: 6, L0758: 6, L0770: 4, L0769: 4, L0662: 3, L0665: 3, L0439: 3, L0745: 3, L0755: 3, H0424: 2, L0748: 2, L0751: 2, L0777: 2, L0757: 2, S0356: 1, H0586: 1, S0280: 1, S0049: 1, H0150: 1, H0051: 1, T0010: 1, H0083: 1, H0028: 1, T0006: 1, H0181: 1, H0038: 1, L0763: 1, L0638: 1, L0373: 1, L0646: 1, L0645: 1, L0764: 1, L0771: 1, L0766: 1, L0804: 1, L0775: 1, L0378: 1, L0806: 1, L0776: 1, L0657: 1, L0659: 1, L0636: 1, L0664: 1, H0593: 1, H0689: 1, H0658: 1, L0746: 1, L0747: 1, L0749: 1, L0750: 1, L0752: 1, L0731: 1 and L0604: 1.	19q13.4	134790, 191044, 600040, 600138
22	HACCK29	561629	32	205 - 294	2629				AR060: 3, AR316: 2, AR089: 1 S0280: 1 and L0766: 1.		
23	HADAB60	745367	33	202 - 357	2630	Pro-45 to Gln-51.			AR089: 2, AR316: 1 L0744: 8, H0427: 4, H0163: 2, S0116: 1, H0021: 1, H0188: 1, S0366: 1, L0646: 1, L0663: 1, S0378: 1 and L0743: 1.		
24	HADAM31	604500	34	161 - 244	2631				H0427: 1		
25	HADCL19	599065	35	140 - 187	2632				H0427: 1		
26	HADCZ65	683227	36	240 - 251	2633				AR060: 180, AR316: 122, AR089: 57 H0556: 2, S0218: 1, H0427: 1, L0752: 1 and H0136: 1.		
27	HADDC04	601695	37	254 - 352	2634				H0427: 1, H0553: 1 and		

28	HADDP23	847115	38	238 - 357	2635		H0674: 1. H0427: 2, H0556: 1, S0001: 1, H0550: 1 and H0539: 1.		
29	HADDP51	853356	39	324 - 704	2636	Asp-70 to Lys-77, Pro-109 to Asp-121.	AR197: 148, AR195: 114, AR192: 92, AR207: 79, AR211: 76, AR245: 65, AR193: 64, AR313: 59, AR242: 56, AR246: 55, AR196: 54, AR188: 50, AR263: 50, AR191: 50, AR240: 50, AR089: 49, AR210: 48, AR271: 47, AR275: 47, AR164: 47, AR198: 46, AR165: 46, AR218: 46, AR219: 45, AR200: 44, AR272: 43, AR243: 43, AR205: 43, AR199: 42, AR166: 42, AR247: 42, AR175: 42, AR299: 41, AR274: 41, AR177: 40, AR189: 40, AR096: 40, AR264: 40, AR060: 40, AR312: 39, AR173: 39, AR316: 39, AR201: 38, AR161: 37, AR162: 37, AR039: 37, AR311: 37, AR163: 36, AR174: 35, AR300: 34, AR104: 34, AR212: 34, AR033: 33, AR282: 33, AR185: 32, AR269: 32, AR213: 31, AR190: 30, AR290: 30, AR238: 30, AR234: 30, AR053: 30, AR258: 29, AR262: 29, AR255: 29, AR295: 29, AR178: 28, AR277: 28, AR308: 27, AR181: 27, AR285: 26, AR183: 25, AR176: 25, AR204: 25,		

						AR180: 25, AR226: 25, AR288: 25, AR309: 24, AR236: 24, AR182: 24, AR233: 24, AR232: 23, AR268: 23, AR179: 23, AR239: 23, AR203: 23, AR270: 23, AR293: 23, AR250: 22, AR257: 22, AR235: 21, AR237: 21, AR261: 21, AR229: 21, AR231: 20, AR297: 19, AR227: 19, AR294: 19, AR287: 19, AR296: 18, AR061: 18, AR253: 18, AR283: 17, AR254: 17, AR291: 16, AR267: 15, AR256: 15, AR228: 14, AR286: 13, AR230: 13, AR169: 13, AR266: 12, AR260: 12, AR055: 11, AR252: 10, AR289: 10, AR224: 9, AR168: 9, AR215: 9, AR171: 9, AR222: 8, AR172: 8, AR223: 8, AR170: 8, AR216: 7, AR214: 7, AR221: 7, AR225: 5, AR217: 5 L0747: 19, L0659: 9, L0764: 8, L0665: 8, H0539: 8, L0758: 8, H0617: 7, L0769: 7, L0731: 6, S0360: 5, S0358: 4, L0586: 4, H0427: 4, H0545: 4, S0344: 4, L0763: 4, L0776: 4, H0661: 3, S0420: 3, S0278: 3, H0549: 3, H0550: 3, S0142: 3, L0770: 3, L0648: 3, L0657: 3, L0783: 3, L0749: 3, L0591: 3, H0171: 2, H0294: 2, T0049: 2, H0657: 2, H0484: 2, H0255: 2, S0442:
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[illegible]

Figure 1 consists of 12 histograms arranged horizontally, each representing a different value of n from 10 to 120. The x-axis for all histograms is labeled 'x' and ranges from 0 to 120. The y-axis is labeled 'count' and ranges from 0 to 100. The histograms show that as n increases, the distribution of the number of non-zero elements in the vector x becomes more concentrated around zero. For $n=10$, the distribution is broad and centered around 10. As n increases, the peak at zero becomes more prominent, and the distribution narrows. By $n=120$, the distribution is very narrow and centered at zero, with a peak count of approximately 100.

30	HADDR24	664477	40	230 - 337	2637				1, L0375: 1, L0651: 1, L0806: 1, L0652: 1, L0654: 1, L0655: 1, L0542: 1, L0518: 1, L0383: 1, L0809: 1, L0519: 1, L0529: 1, L0647: 1, L0666: 1, S0428: 1, H0144: 1, H0701: 1, L0565: 1, H0547: 1, H0519: 1, H0682: 1, H0684: 1, H0435: 1, S0328: 1, H0521: 1, H0522: 1, H0134: 1, H0436: 1, S0037: 1, L0744: 1, L0748: 1, L0756: 1, L0757: 1, S0031: 1, S0434: 1, L0588: 1, L0581: 1, S0026: 1, S0194: 1, H0543: 1, H0423: 1, H0422: 1 and H0293: 1.		
31	HADET62	607615	41	154 - 249	2638				AR089: 3, AR316: 2, AR060: 1 L0748: 2, L0749: 2, S0222: 1, H0427: 1, H0596: 1, H0644: 1, L0367: 1 and H0352: 1.		
32	HADEY08	799507	42	201 - 248	2639	Met-1 to Trp-8.			H0427: 2 L0748: 8, L0439: 8, L0769: 5, L0666: 5, L0637: 4, L0375: 4, L0779: 4, S0192: 4, H0486: 3, H0427: 3, T0041: 3, L0763: 3, L0770: 3, L0659: 3, L0747: 3, L0777: 3, L0758: 3, L0599: 3, H0309: 2, H0622: 2, L0794: 2, L0776: 2, L0783: 2, L0663: 2, L0438: 2, H0593: 2, L0602: 2, L0749: 2, L0750: 2, L0755: 2, L0731: 2, L0759: 2, L0588: 2, S0276: 2, H0265: 1, H0556: 1, S6024: 1, S0116: 1, H0663: 1, H0662: 1, H0402: 1, S0418: 1, S0354: 1, S0358: 1, S0360: 1, S0408: 1, H0637: 1, H0329: 1, S0468: 1, H0393: 1, L0717: 1, S6022: 1, H0587: 1, H0156: 1, H0318: 1, H0581: 1, H0052: 1	10cen-q26.11	

									1, H0545: 1, H0081: 1, H0011: 1, H0012: 1, H0024: 1, S6028: 1, H0181: 1, H0135: 1, H0040: 1, H0264: 1, H0413: 1, H0056: 1, H0494: 1, S0150: 1, H0641: 1, H0652: 1, S0426: 1, L0369: 1, L0667: 1, L0646: 1, L0642: 1, L0649: 1, L0803: 1, L0804: 1, L0652: 1, L0657: 1, L0559: 1, L0809: 1, H0144: 1, S0374: 1, H0547: 1, H0658: 1, H0539: 1, S0152: 1, L0743: 1, L0744: 1, H0668: 1 and H0423: 1.			
33	HADEY22	704584	43	169 - 267	2640	Gly-22 to Val-29.	H0427: 2					
34	HADEY22	861628	44	169 - 267	2641	Gly-22 to Val-29.	H0427: 2					
35	HADFB84	668229	45	94 - 234	2642		H0427: 3, H0497: 1, H0485: 1, H0036: 1, S0010: 1, H0553: 1, L0803: 1, H0701: 1, H0689: 1 and L0748: 1.					
36	HADEFD01	829979	46	377 - 577	2643	Ala-17 to Trp-23, Ser-46 to Thr-51.	H0427: 3, L0759: 3, H0409: 1, H0333: 1, H0013: 1, H0156: 1, L0105: 1, H0083: 1, H0032: 1, L0770: 1, L0796: 1, L0794: 1, L0766: 1, L0774: 1, L0776: 1, L0754: 1, L0777: 1, L0752: 1, L0755: 1 and L0757: 1.					
37	HADEFD10	843934	47	212 - 328	2644		L0759: 3, S0222: 2, H0427: 2, L0755: 2, L0757: 2, S0134: 1, S0360: 1, H0409: 1, H0333: 1, H0013: 1, H0156: 1, H0575: 1, H0390: 1, L0105: 1, H0263: 1, H0083: 1, S0214: 1, H0032: 1, L0770: 1, L0796: 1, L0794: 1, L0766: 1, L0774: 1, L0776: 1, L0655: 1, S0390: 1, L0751: 1, L0754: 1, L0777: 1, L0752: 1, L0485: 1 and S0196: 1.					
38	HADFK11	637485	48	24 - 197	2645		H0427: 1					
39	HADFT44	793100	49	147 - 314	2646		L0163: 4, T0006: 2, H0716: 1	10q24		157640, 174900.		

									1, S6022: 1, S0222: 1, L0623: 1, H0427: 1, S0388: 1, S0051: 1, L0769: 1, L0794: 1, L0659: 1, H0144: 1 and L0758: 1.		180250, 186770, 236730, 271245, 278000, 278000, 600095, 600512, 601107, 601130, 602082
40	HADFW20	599066	50	223 - 306	2647				H0427: 1		
41	HADFX10	741054	51	187 - 297	2648				S0222: 1 and H0427: 1.		
42	HADFY80	654831	52	83 - 187	2649				H0427: 1 and S0438: 1.		
43	HADGD93	826467	53	47 - 184	2650				H0427: 1 and H0412: 1.		
44	HADMA77	783049	54	992 - 1063	2651				AR089: 9, AR316: 8, AR060: 7 L0439: 15, S0222: 4, L0157: 4, L0769: 4, L0438: 3, L0745: 3, L0731: 3, L0758: 3, L0599: 3, H0443: 2, H0441: 2, S0010: 2, L0662: 2, L0744: 2, L0748: 2, L0750: 2, L0756: 2, L0777: 2, H0583: 1, L0005: 1, S0354: 1, H0675: 1, H0619: 1, H0369: 1, H0574: 1, H0486: 1, H0390: 1, S0346: 1, H0309: 1, H0597: 1, T0003: 1, H0024: 1, S0050: 1, S6028: 1, H0028: 1, T0006: 1, H0628: 1, H0135: 1, H0551: 1, S0438: 1, L0520: 1, L0768: 1, L0776: 1, L0559: 1, L0659: 1, L0384: 1, L0809: 1, H0144: 1, H0547: 1, L0746: 1, L0747: 1, L0757: 1 and S0434: 1.		
45	HADXA10	772423	55	1327 - 1698	2652			Ser-90 to Lys-98.	AR089: 12, AR316: 9, AR060: 6 L0766: 3, L0805: 3, L0740: 3, L0749: 3, T0049: 2, H0580: 2, H0619: 2, S0474: 2, H0673: 2, H0674: 2, L0662: 2, L0804: 2, L0775: 2, L0657: 2, L0518: 2, L0666: 2, L0665: 2, S0374: 2, L0777: 2, H0624: 1, S0114: 2.	2p24.3-p24.1	602134

46	HADXA10	859777	56	731 - 1102	2653	Ser-90 to Lys-98.	<p>1, H0657: 1, L0785: 1, S0116: 1, S0212: 1, H0664: 1, H0589: 1, H0729: 1, S0046: 1, H0443: 1, H0369: 1, H0333: 1, H0156: 1, H0052: 1, H0194: 1, H0231: 1, H0544: 1, S0050: 1, H0051: 1, T0010: 1, S0214: 1, H0428: 1, H0039: 1, H0622: 1, T0023: 1, H0100: 1, S0440: 1, S0422: 1, S0426: 1, L0770: 1, L0769: 1, L0637: 1, L0772: 1, L0648: 1, L0776: 1, L0809: 1, L0367: 1, L0663: 1, H0144: 1, H0520: 1, H0670: 1, S0044: 1, S014: 1, L0439: 1, L0756: 1, L0779: 1, L0752: 1, L0757: 1, L0759: 1, H0444: 1, H0445: 1, H0595: 1, L0596: 1 and L0604: 1.</p> <p>AR089: 12, AR316: 9, AR060: 6 L0766: 3, L0805: 3, L0740: 3, L0749: 3, T0049: 2, H0580: 2, H0619: 2, S0474: 2, H0673: 2, H0674: 2, L0662: 2, L0804: 2, L0775: 2, L0657: 2, L0518: 2, L0666: 2, L0665: 2, S0374: 2, L0777: 2, H0624: 1, S0114: 1, H0657: 1, L0785: 1, S0116: 1, S0212: 1, H0664: 1, H0589: 1, H0729: 1, S0046: 1, H0443: 1, H0369: 1, H0333: 1, H0156: 1, H0052: 1, H0194: 1, H0231: 1, H0544: 1, S0050: 1, H0051: 1, T0010: 1, S0214: 1, H0428: 1, H0039: 1, H0622: 1, T0023: 1, H0100: 1, S0440: 1, S0422: 1, S0426: 1, L0770: 1, L0769: 1, L0637: 1, L0772: 1, L0648: 1, L0776: 1, L0809: 1, L0367: 1, L0663: 1, H0144: 1, H0520:</p>	2p24.3-p24.1	602134
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									1, H0670: 1, S0044: 1, S3014: 1, L0439: 1, L0756: 1, L0779: 1, L0752: 1, L0757: 1, L0759: 1, H0444: 1, H0445: 1, H0595: 1, L0596: 1 and L0604: 1.			
47	HAFBB15	608180	57	186 - 449	2654	Lys-61 to Lys-70.			H0521: 5, S0410: 3, S0476: 3, H0169: 3, L0766: 3, S0026: 3, H0542: 3, H0713: 2, T0049: 2, H0575: 2, H0551: 2, H0623: 2, L0783: 2, L0438: 2, L0777: 2, L0757: 2, L0759: 2, L0588: 2, H0171: 1, H0158: 1, S0040: 1, H0295: 1, H0656: 1, H0341: 1, H0638: 1, S0420: 1, S0356: 1, S0442: 1, H0580: 1, S0007: 1, S0132: 1, H0013: 1, H0052: 1, H0309: 1, H0172: 1, S0022: 1, S0214: 1, H0615: 1, H0622: 1, H0673: 1, H0708: 1, H0591: 1, H0413: 1, H0100: 1, H0494: 1, H0560: 1, S0210: 1, S0422: 1, S0002: 1, L0770: 1, L0637: 1, L0772: 1, L0775: 1, L0653: 1, L0654: 1, L0776: 1, L0657: 1, L0659: 1, S0374: 1, H0659: 1, H0648: 1, H0672: 1, H0539: 1, H0631: 1, S3014: 1, S0028: 1, L0740: 1, L0756: 1, L0779: 1, L0752: 1, S0031: 1, S0260: 1, H0444: 1, H0543: 1 and H0422: 1.			
48	HAFBL14	832502	58	542 - 637	2655				S0358: 8, L0439: 5, H0052: 3, S0360: 2, L0157: 2, L0438: 2, L0747: 2, L0779: 2, L0594: 2, H0686: 1, T0049: 1, H0156: 1, S0010: 1, H0581: 1, H0596: 1, H0687: 1, S0003: 1, H0316: 1, H0038: 1, H0412: 1, S0038: 1, H0538: 1, L0769: 1, L0772: 1, L0662: 1, L0766: 1, L0775: 1.			

49	HAGAB62	588471	59	82 - 207	2656	Ser-11 to Gly-19.	<p>1, L0655: 1, L0659: 1, L0792: 1, S0206: 1, L0749: 1, L0752: 1, S0260: 1, L0596: 1, L0591: 1, H0677: 1 and S0021: 1.</p> <p>L0766: 7, L0439: 5, H0620: 4, H0328: 4, S0422: 4, S0374: 4, L0777: 4, L0362: 4, S0007: 3, S0003: 3, S0440: 3, L0637: 3, L0771: 3, L0806: 3, L0659: 3, H0684: 3, S0406: 3, L0754: 3, L0747: 3, L0752: 3, L0758: 3, H0171: 2, S0114: 2, L0808: 2, S0356: 2, S0360: 2, L0717: 2, H0486: 2, H0013: 2, H0263: 2, H0553: 2, H0591: 2, L0653: 2, L0537: 2, L0664: 2, L0665: 2, H0144: 2, L0438: 2, H0651: 2, H0521: 2, L0750: 2, L0756: 2, L0759: 2, S0011: 2, S0026: 2, H0543: 2, H0423: 2, H0170: 1, H0685: 1, S0040: 1, H0716: 1, L0002: 1, H0657: 1, S0282: 1, L0005: 1, S0442: 1, S0358: 1, S0376: 1, S0444: 1, S0408: 1, H0586: 1, H0587: 1, H0574: 1, H0427: 1, H0575: 1, S0010: 1, S0665: 1, H0318: 1, H0581: 1, H0085: 1, H0596: 1, H0545: 1, L0041: 1, H0565: 1, L0471: 1, H0012: 1, S0388: 1, H0266: 1, S0250: 1, H0615: 1, H0428: 1, H0622: 1, H0598: 1, H0090: 1, T0067: 1, H0488: 1, H0412: 1, L0351: 1, L0598: 1, H0529: 1, L0763: 1, L0796: 1, L0761: 1, L0646: 1, L0662: 1, L0364: 1, L0803: 1, L0650: 1, L0775: 1, L0375: 1, L0805: 1, L0776: 1, L0655: 1, L0807: 1, L0517: 1, L0544: 1, L0663: 1, L0352: 1.</p>	3		
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50	HAGAB83	823044	60	35 - 142	2657				S0010: 1 and L0749: 1.				120550, 120570, 120575, 130500, 133200, 153454, 256700, 600975
51	HAGAE84	847117	61	205 - 258	2658				AR060: 4, AR316: 3, AR089: 2 S0010: 1	lp36.23-p36.11			
52	HAGAF75	561933	62	106 - 282	2659			Met-1 to Trp-7, Arg-40 to Ser-55.	L0756: 3, H0392: 1, S0010: 1, L0805: 1, S0350: 1, L0754: 1, L0747: 1, L0780: 1, L0755: 1, L0731: 1, L0758: 1 and H0352: 1.				
53	HAGAK40	731929	63	187 - 246	2660				AR089: 31, AR316: 23, AR060: 15 L0157: 2, H0659: 2, S0328: 2, S0040: 1, H0402: 1, S0010: 1, S0346: 1, H0252: 1, L0775: 1, L0375: 1, L0807: 1, H0542: 1 and H0352: 1.				
54	HAGAU43	844223	64	285 - 383	2661				H0313: 2, L0809: 2, L0752: 2, S0010: 1, L0763: 1, L0768: 1, L0794: 1, L0803: 1 and H0696: 1.				
55	HAGAZ36	564230	65	128 - 325	2662				S0010: 1				
56	HAGBC57	823117	66	358 - 414	2663				L0766: 7, L0493: 5, S0003: 4, L0774: 4, L0740: 4, L0758: 4, H0692: 3, L0809: 3, L0666: 3, L0439: 3, L0747: 3, L0752: 3, L0731: 3, H0422: 3, H0171: 2, H0650: 2, H0657: 2, H0402: 2, H0305: 2, S0418: 2, H0156: 2, H0271: 2, H0090: 2, S0440: 2, L0598: 2, L0500: 2, L0770: 2	3q26.2-q27			109565, 109565, 138160, 138160, 142640, 177400, 228960, 261515, 600044

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57	HAGBL31	679582	67	27 - 119	2664				S0010: 1 and L0663: 1.	
58	HAGBO09	853357	68	59 - 157	2665				S0010: 1, S0051: 1 and H0144: 1.	

59	HAGBO12	601431	69	54 - 152	2666		S0010: 1			
60	HAGBO51	701965	70	132 - 245	2667		AR060: 4, AR316: 3, AR089: 2 L0756: 9, L0740: 3, S0010: 1, S0051: 1, S6028: 1, L0770: 1, L0789: 1, L0438: 1 and L0600: 1.			
61	HAGBS89	846292	71	98 - 205	2668		S0010: 2, S0011: 2 and H0264: 1.			
62	HAGBV06	701966	72	98 - 175	2669		AR089: 17, AR316: 14, AR060: 12 L0777: 12, L0758: 9, L0439: 8, L0740: 7, L0779: 7, H0040: 6, L0748: 6, L0747: 6, H0038: 5, L0659: 5, L0595: 5, L0761: 4, L0776: 4, L0663: 4, L0565: 4, L0749: 4, L0605: 4, H0427: 3, H0050: 3, H0673: 3, H0068: 3, L0662: 3, L0666: 3, L0751: 3, H0445: 3, L0596: 3, L0717: 2, H0253: 2, H0457: 2, L0471: 2, H0057: 2, H0014: 2, H0617: 2, T0041: 2, H0641: 2, L0770: 2, L0769: 2, L0794: 2, L0766: 2, L0649: 2, L0775: 2, L0805: 2, S0374: 2, H0682: 2, H0658: 2, H0521: 2, L0742: 2, L0755: 2, L0731: 2, H0543: 2, H0624: 1, H0685: 1, S0342: 1, S0134: 1, H0583: 1, S0116: 1, H0341: 1, H0459: 1, S0360: 1, S0132: 1, H0619: 1, H0392: 1, H0586: 1, L0021: 1, H0599: 1, H0098: 1, S0010: 1, H0318: 1, S0474: 1, H0596: 1, L0118: 1, H0373: 1, H0179: 1, H0416: 1, H0687: 1, H0328: 1, H0039: 1, H0553: 1, H0606: 1, S0366: 1, H0090: 1, H0591: 1, H0616: 1, H0412: 1, H0059: 1, L0369: 1, L0763:	7q34	180105, 222800, 274180	

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66	HAGCH67	561934	76	150 - 275	2673				S0010: 1, L0805: 1 and L0745: 1.			
67	HAGCI69	560596	77	31 - 231	2674		Asn-39 to Lys-44.		AR089: 5, AR316: 4, AR060: 4 S0010: 1 and S0152: 1.			
68	HAGCT33	751796	78	42 - 161	2675				L0439: 2, L0759: 2, H0013: 1, S0010: 1, L0438: 1, H0521: 1, L0755: 1, L0731: 1 and L0758: 1.			
69	HAGCZ70	747697	79	91 - 198	2676				S0010: 2, L0766: 2 and L0599: 2.			
70	HAGDC73	724860	80	744 - 836	2677				AR060: 6, AR316: 5, AR089: 3 L0794: 6, L0777: 3, H0032: 2, L0766: 2, L0438: 2, L0439: 2, L0758: 2, L0759: 2, L0591: 2, H0624: 1, H0717: 1, S0114: 1, H0661: 1, S0356: 1, S0010: 1, T0010: 1, S0003: 1, H0135: 1, H0038: 1, S0440: 1, H0529: 1, L0763: 1, L0637: 1, L0764: 1, L0657: 1, L0659: 1, L0782: 1, L0809: 1, L0789: 1, H0144: 1, H0519: 1, H0689: 1, H0682: 1, H0659: 1, L0749: 1, L0779: 1 and L0593: 1.			
71	HAGDG84	745368	81	297 - 416	2678				AR060: 4, AR316: 3, AR089: 1 L0754: 7, L0438: 2, S0010: 1, L0794: 1, L0780: 1, H0542: 1 and H0423: 1.			
72	HAGDH85	596804	82	45 - 146	2679				S0010: 1			
73	HAGDI69	566758	83	110 - 121	2680				L0769: 3, L0438: 3, L0439: 1			

									3, L0759: 3, L0770: 2, L0758: 2, S0010: 1, H0178: 1, H0051: 1, L0455: 1, L0456: 1, S0112: 1, L0745: 1, L0756: 1 and H0352: 1.			
74	HAGDI53	821315	84	130 - 231	2681			Gly-20 to His-33.	H0305: 3, S0010: 1 and H0521: 1.			
75	HAGDI56	608181	85	81 - 185	2682				H0052: 2, H0599: 1, S0010: 1, H0604: 1, L0741: 1 and L0779: 1.			
76	HAGDL51	637488	86	218 - 319	2683				S0010: 1, H0445: 1 and S0276: 1.			
77	HAGDO70	812393	87	338 - 880	2684			Asn-74 to Gln-79, Pro-89 to Val-104.	AR060: 849, AR316: 553, AR089: 225 H0144: 8, L0779: 8, L0769: 6, H0617: 5, L0800: 3, L0771: 3, L0804: 3, L0747: 3, L0759: 3, H0624: 2, H0484: 2, S0356: 2, S0360: 2, S0408: 2, S0007: 2, H0370: 2, H0333: 2, H0009: 2, H0012: 2, H0424: 2, H0203: 2, L0770: 2, L0761: 2, L0766: 2, H0519: 2, L0749: 2, L0750: 2, L0752: 2, H0149: 1, H0265: 1, L0785: 1, S0116: 1, H0341: 1, H0483: 1, H0125: 1, L0005: 1, S0046: 1, S0132: 1, H0393: 1, H0441: 1, H0331: 1, H0101: 1, H0013: 1, S0010: 1, T0048: 1, H0327: 1, H0041: 1, H0570: 1, H0123: 1, H0083: 1, H0290: 1, H0292: 1, H0428: 1, H0213: 1, H0181: 1, H0135: 1, H0038: 1, H0040: 1, H0063: 1, H0264: 1, S0440: 1, S0142: 1, S0210: 1, S0422: 1, L0764: 1, L0773: 1, L0803: 1, L0775: 1, L0783: 1, L0809: 1, L4501: 1, L0438: 1, H0670: 1, H0672: 1, S0406: 1, L0748: 1, L0439: 1, L0758: 1.	19q13.1	164731, 172400, 172400, 180901, 180901, 221770, 248600, 600918, 602716	

78	HAGDT30	589514	88	198 - 305	2685			1, S0031: 1, L0592: 1, L0608: 1 and H0423: 1. AR060: 4, AR316: 3, AR089: 3 H0038: 15, H0547: 12, H0616: 9, H0529: 9, S0126: 9, S0028: 8, H0013: 7, S0010: 7, H0520: 7, H0519: 7, H0052: 6, S0628: 6, H0521: 6, H0123: 5, L0471: 5, H0551: 5, S0046: 4, H0046: 4, L0157: 4, H0024: 4, H0644: 4, H0494: 4, H0518: 4, S0027: 4, L0748: 4, H0543: 4, S0280: 3, H0327: 3, H0050: 3, H0012: 3, H0266: 3, H0144: 3, H0539: 3, H0555: 3, H0445: 3, L0593: 3, L0595: 3, H0624: 2, H0556: 2, H0650: 2, H0656: 2, H0341: 2, S0212: 2, H0663: 2, H0638: 2, S0420: 2, S0360: 2, S0007: 2, S0045: 2, S0132: 2, H0393: 2, S0222: 2, H0486: 2, H0156: 2, H0098: 2, H0575: 2, H0620: 2, S0003: 2, S0214: 2, H0615: 2, H0428: 2, H0553: 2, S0036: 2, H0135: 2, H0090: 2, H0264: 2, H0100: 2, T0042: 2, H0561: 2, H0509: 2, S0142: 2, S0210: 2, L0766: 2, L0803: 2, H0435: 2, H0658: 2, H0436: 2, S0312: 2, S0114: 2, S0206: 2, L0596: 2, L0592: 2, L0594: 2, H0542: 2, H0423: 2, H0506: 2, H0170: 1, S0040: 1, S0218: 1, H0583: 1, H0657: 1, H0483: 1, H0662: 1, S0418: 1, L0005: 1, S0354: 1, S0408: 1, H0637: 1, H0580: 1, H0619: 1, S0278: 1, H0549: 1, H0431: 1, H0357: 1, H0592: 1, H0586: 1, H0497: 1,				
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79	HAGDW68	835631	89	90 - 209	2686	Thr-34 to Pro-39.	H0331: 1, H0069: 1, H0036: 1, H0004: 1, H0505: 1, S0182: 1, H0581: 1, S0049: 1, H0434: 1, H0194: 1, H0251: 1, T0110: 1, H0544: 1, H0009: 1, H0014: 1, T0010: 1, H0083: 1, H0510: 1, H0687: 1, H0252: 1, H0622: 1, H0031: 1, L0142: 1, H0032: 1, H0316: 1, H0598: 1, H0634: 1, H0477: 1, H0268: 1, H0412: 1, H0413: 1, T0041: 1, L0475: 1, H0560: 1, H0625: 1, H0633: 1, L0598: 1, L0549: 1, L0378: 1, L0515: 1, H0698: 1, L0565: 1, H0682: 1, H0684: 1, H0660: 1, S0152: 1, S0350: 1, H0704: 1, S0392: 1, L0756: 1, L0777: 1, L0752: 1, L0689: 1, H0707: 1, L0589: 1, L0591: 1, L0581: 1, L0362: 1, L0366: 1, S0026: 1, H0667: 1, L0465: 1, L0697: 1, S0424: 1 and H0677: 1.		
80	HAGDX84	638158	90	223 - 240	2687	Thr-34 to Pro-39.	L0756: 3, H0156: 1, S0010: 1, L0371: 1 and L0769: 1. AR060: 10, AR316: 10, AR089: 10 L0779: 3, S0116: 2, H0031: 2, L0768: 2, L0649: 2, L0806: 2, H0686: 1, H0341: 1, H0663: 1, S0358: 1, S0360: 1, S0278: 1, H0431: 1, H0486: 1, H0575: 1, S0010: 1, H0327: 1, H0046: 1, H0178: 1, H0012: 1, H0620: 1, T0078: 1, H0179: 1, H0673: 1, H0135: 1, H0529: 1, L0761: 1, L0772: 1, L0764: 1, L0662: 1, L0774: 1, L0776: 1, L0655: 1, H0670: 1, H0648: 1, H0576: 1, L0748: 1, L0749: 1, L0777: 1, L0755: 1, L0758: 1, H0445: 1	10q23-q24.1	124020, 134637, 157640, 174900, 236730, 278000, 278000, 600095, 600512, 601493

81	HAGEK37	793464	91	932 - 1051	2688	Met-1 to Phe-6.	1 and S0462: 1. AR060: 11, AR316: 10, AR089: 9 L0754: 9, L0771: 6, L0809: 6, L0748: 6, L0794: 5, L0750: 5, L0439: 4, L0752: 4, L0759: 4, L0599: 4, S0376: 3, L0803: 3, L0731: 3, L0758: 3, H0619: 2, H0036: 2, S0010: 2, H0327: 2, H0271: 2, H0416: 2, L0770: 2, L0804: 2, L0774: 2, S0406: 2, L0755: 2, L0362: 2, H0556: 1, H0716: 1, H0583: 1, S0116: 1, H0341: 1, H0177: 1, H0305: 1, H0369: 1, H0586: 1, H0486: 1, H0597: 1, H0046: 1, H0457: 1, H0172: 1, H0123: 1, H0050: 1, H0024: 1, H0051: 1, H0266: 1, H0615: 1, H0553: 1, H0673: 1, H0090: 1, H0591: 1, H0551: 1, H0080: 1, H0100: 1, H0494: 1, H0560: 1, S0440: 1, L0520: 1, L0637: 1, L0761: 1, L0646: 1, L0662: 1, L0768: 1, L0387: 1, L0766: 1, L0775: 1, L0805: 1, L0527: 1, L0518: 1, L0788: 1, L0532: 1, L0666: 1, L0664: 1, S0428: 1, H0703: 1, L0438: 1, H0520: 1, H0658: 1, H0648: 1, S0404: 1, L0740: 1, L0747: 1, L0749: 1, L0756: 1, L0779: 1, L0780: 1, L0753: 1, S0031: 1, S0436: 1, L0361: 1 and S0412: 1.	6p23-p22.3	125264, 187680, 600511, 601556
82	HAGEK86	748222	92	165 - 260	2689		H0385: 7, S0358: 6, L0740: 6, S0052: 4, L0747: 4, L0777: 3, L0596: 3, S0010: 2, L0766: 2, L0776: 2, L0517: 2, L0755: 2, S0222: 1, S0346: 1, H0179: 1, H0428: 1, H0039: 1, H0031: 1.	16q22.1-q22.3	103850, 114835, 116800, 140100, 140100, 192090, 192090, 192090, 192090, 245900, 245900, 276600,

									1, H0553: 1, H0591: 1, H0616: 1, S0386: 1, H0494: 1, S0016: 1, H0641: 1, L0369: 1, L0769: 1, L0761: 1, L0764: 1, L0768: 1, L0803: 1, L0378: 1, L0652: 1, L0783: 1, L0809: 1, L0367: 1, L0663: 1, L0664: 1, H0144: 1, H0693: 1, S0310: 1, H0547: 1, H0670: 1, S0330: 1, L0741: 1, L0754: 1, L0745: 1, L0749: 1, L0750: 1, L0752: 1, L0731: 1, L0758: 1, L0759: 1, S0031: 1, H0343: 1 and L0599: 1.				600223
83	HAGEP30	604478	93	120 - 227	2690				S0010: 1				
84	HAGEQ58	695945	94	162 - 215	2691				AR060: 7, AR316: 7, AR089: 6 S0010: 2				
85	HAGEQ67	838445	95	226 - 339	2692				AR060: 6, AR316: 6, AR089: 6 L0748: 14, L0754: 8, L0750: 5, S0010: 3, H0553: 3, L0755: 3, H0574: 2, S0003: 2, L0756: 2, S0402: 1, H0619: 1, L0717: 1, S0222: 1, H0331: 1, H0069: 1, L0022: 1, S0050: 1, H0598: 1, S0438: 1, L0369: 1, L0763: 1, L0638: 1, L0639: 1, L0662: 1, L0775: 1, L0776: 1, L0659: 1, H0144: 1, H0520: 1, H0539: 1, H0478: 1, L0741: 1, L0779: 1, L0777: 1, L0752: 1, L0589: 1 and L0366: 1.				
86	HAGEU26	608183	96	175 - 336	2693			Ser-33 to Leu-38.	S0010: 4				
87	HAGEW83	617111	97	18 - 113	2694			Pro-20 to Cys-30.	L0777: 3, S0010: 1, L0775: 1, H0519: 1, L0779: 1, L0752: 1, L0755: 1 and L0758: 1.	11q14.3-q21	133780, 203100, 203100		
88	HAGEX49	834502	98	606 - 656	2695				AR060: 6, AR316: 5, AR089: 4 H0178: 4, L0351: 4, S0222:	3p24.3	154705, 190160, 227646, 601154		

89	HAGEX49	844227	99	606 - 656	2696			3, H0009: 3, L0769: 3, L0439: 3, H0441: 2, L0794: 2, L0741: 2, S0001: 1, S0045: 1, S6026: 1, S0010: 1, S0346: 1, H0194: 1, H0565: 1, H0569: 1, H0172: 1, S0388: 1, H0399: 1, S6028: 1, L0638: 1, L0767: 1, L0792: 1, L0438: 1, H0520: 1, S0028: 1 and L0595: 1.	3p24.3	154705, 190160, 227646, 601154
90	HAGFD75	847119	100	13 - 198	2697	His-23 to Asn-28, Phe-55 to Asp-61.		AR060: 6, AR316: 5, AR089: 4 H0178: 4, L0351: 4, S0222: 3, H0009: 3, L0769: 3, L0439: 3, H0441: 2, L0794: 2, L0741: 2, S0001: 1, S0045: 1, S6026: 1, S0010: 1, S0346: 1, H0194: 1, H0565: 1, H0569: 1, H0172: 1, S0388: 1, H0399: 1, S6028: 1, L0638: 1, L0767: 1, L0792: 1, L0438: 1, H0520: 1, S0028: 1 and L0595: 1.		
								AR053: 12, AR213: 10, AR290: 9, AR183: 9, AR270: 9, AR285: 9, AR052: 9, AR182: 9, AR271: 9, AR284: 8, AR241: 8, AR033: 8, AR292: 8, AR269: 8, AR268: 8, AR313: 8, AR184: 7, AR295: 7, AR175: 7, AR192: 7, AR310: 6, AR198: 6, AR246: 6, AR291: 6, AR243: 6, AR293: 6, AR177: 6, AR039: 6, AR282: 6, AR205: 6, AR060: 6, AR266: 6, AR309: 6, AR263: 6, AR296: 6, AR312: 5, AR265: 5, AR273: 5,		

[illegible]

91	HAGFF43	821316	101	266 - 283	2698			1, L0794: 1, L0387: 1, L0775: 1, L0526: 1, L0782: 1, L0666: 1, H0683: 1, H0672: 1, L0740: 1, L0751: 1, L0754: 1, L0755: 1, L0731: 1, S0434: 1, H0667: 1, S0041: 1 and H0506: 1. L0803: 4, L0756: 4, L0777: 4, S0242: 4, H0171: 2, S0212: 2, S0222: 2, S0010: 2, S0250: 2, H0144: 2, L0731: 2, H0170: 1, H0341: 1, L0021: 1, H0581: 1, H0457: 1, H0563: 1, H0567: 1, S0050: 1, S0214: 1, S0366: 1, H0551: 1, T0004: 1, S0038: 1, S0112: 1, H0538: 1, L0796: 1, L0768: 1, L0774: 1, L0659: 1, L0530: 1, L0666: 1, L0366: 1 and H0506: 1.		
92	HAGFJ67	861680	102	208 - 486	2699	Cys-26 to Asp-31.		AR060: 9, AR316: 9, AR089: 9 L0777: 6, L0749: 5, L0804: 3, L0439: 3, L0754: 3, L0766: 2, L0788: 2, L0438: 2, L0747: 2, H0265: 1, H0455: 1, S0010: 1, L0655: 1, L0666: 1, S0053: 1, S0374: 1, L0352: 1, L0751: 1, L0756: 1, L0755: 1, L0731: 1, L0757: 1, L0758: 1, L0759: 1, L0599: 1 and L0604: 1.		
93	HAGFM58	604536	103	243 - 278	2700			L0794: 2, S0045: 1, H0351: 1, S0010: 1, L0438: 1 and L0439: 1.		
94	HAGFT48	780112	104	830 - 1192	2701	Gln-47 to Gly-52.		S0010: 1	2p14-p13	203800, 602404
95	HAGFU31	751713	105	105 - 239	2702	Asn-34 to Gly-39.		AR089: 29, AR316: 23, AR060: 18		
96	HAGFW13	634611	106	183 - 287	2703			H0706: 1 and S0010: 1.		
97	HAGHE85	838059	107	342 - 359	2704			AR089: 29, AR316: 21, AR060: 14		

98	HAGHR18	655435	108	28 - 126	2705		S0346: 3 and S0045: 1. AR055: 7, AR052: 6, AR247: 6, AR061: 6, AR053: 6, AR060: 5, AR182: 5, AR263: 5, AR310: 5, AR312: 4, AR185: 4, AR282: 4, AR251: 4, AR033: 4, AR104: 4, AR299: 4, AR244: 4, AR293: 4, AR313: 4, AR316: 3, AR089: 3, AR269: 3, AR270: 3, AR298: 3, AR253: 3, AR296: 3, AR232: 3, AR285: 3, AR198: 3, AR286: 3, AR283: 3, AR300: 3, AR184: 3, AR237: 3, AR295: 3, AR213: 3, AR284: 2, AR267: 2, AR266: 2, AR290: 2, AR268: 2, AR277: 2, AR289: 2, AR294: 2, AR096: 2, AR186: 2, AR183: 2, AR233: 2, AR229: 2, AR177: 2, AR259: 2, AR039: 2, AR246: 2, AR248: 2, AR175: 2, AR292: 2, AR309: 2, AR265: 2, AR226: 1, AR234: 1, AR179: 1, AR258: 1, AR231: 1, AR238: 1 L0717: 1 and S0346: 1.		
99	HAGIB90	845963	109	59 - 130	2706		AR089: 21, AR316: 19, AR060: 17 L0777: 11, L0766: 10, L0439: 9, L0803: 5, L0748: 5, L0750: 5, L0666: 3, L0754: 3, S0116: 2, S0282: 2, S0222: 2, 19p13.1	143890, 151440, 600173, 600276, 600310, 600310, 601604, 601843	

								S0346: 2, H0510: 2, H0038: 2, L0769: 2, L0805: 2, L0438: 2, L0743: 2, L0740: 2, L0756: 2, L0755: 2, L0605: 2, S0194: 2, H0624: 1, H0171: 1, H0265: 1, S0420: 1, H0411: 1, S0414: 1, S0049: 1, H0052: 1, T0110: 1, H0179: 1, H0135: 1, H0040: 1, H0264: 1, H0538: 1, L0520: 1, L0639: 1, L0764: 1, L0521: 1, L0794: 1, L0804: 1, L0774: 1, L0775: 1, L0806: 1, L0384: 1, L0789: 1, L0790: 1, L0663: 1, H0144: 1, S0380: 1, H0522: 1, S3012: 1, L0742: 1, L0749: 1, L0779: 1, L0780: 1, L0758: 1, S0026: 1 and H0422: 1.		
100	HAHEM51	835871	110	185 - 304	2707			AR060: 9, AR316: 7, AR089: 5 H0599: 1		
101	HAHSA76	848816	111	595 - 600	2708			H0599: 5, L0777: 2, L0485: 2, H0097: 1, H0706: 1, L0774: 1, L0666: 1, L0747: 1, L0780: 1 and L0759: 1.		
102	HAHSD51	847014	112	85 - 234	2709	Leu-32 to Gly-46.		L0731: 12, H0545: 10, H0341: 7, L0769: 7, L0748: 7, L0751: 7, L0750: 7, S0144: 6, L0766: 6, L0747: 6, L0752: 6, L0758: 6, H0295: 5, S0360: 5, S0344: 5, L0775: 5, L0744: 5, L0754: 5, L0755: 5, H0657: 4, H0305: 4, S0278: 4, H0424: 4, H0213: 4, L0774: 4, L0659: 4, L0439: 4, L0740: 4, L0745: 4, L0749: 4, S0007: 3, S0045: 3, S0046: 3, L0622: 3, H0097: 3, H0546: 3, H0012: 3, H0266: 3, H0188: 3, T0006: 3, H0673: 3, H0059: 3, L0803: 3, S014: 3, L0777: 3, L0757: 3, H0171: 2.		

					S0040: 2, H0663: 2, S0358: 2, S0408: 2, S0132: 2, L0717: 2, H0351: 2, S0222: 2, H0333: 2, H0486: 2, H0101: 2, T0048: 2, H0318: 2, H0052: 2, H0041: 2, H0009: 2, L0157: 2, H0510: 2, H0622: 2, H0604: 2, H0644: 2, H0617: 2, H0040: 2, H0494: 2, S0438: 2, H0633: 2, L0770: 2, L0761: 2, L0764: 2, L0521: 2, L0375: 2, L0776: 2, L0783: 2, S0126: 2, H0670: 2, S0152: 2, S0027: 2, S0032: 2, L0753: 2, L0759: 2, H0624: 1, H0170: 1, H0294: 1, H0650: 1, H0381: 1, S0116: 1, H0484: 1, H0255: 1, H0177: 1, H0402: 1, S0418: 1, S0354: 1, S0444: 1, H0675: 1, H0580: 1, H0393: 1, H0441: 1, H0249: 1, H0592: 1, H0586: 1, H0490: 1, L0623: 1, H0599: 1, H0108: 1, T0082: 1, S0010: 1, S0049: 1, H0173: 1, H0196: 1, H0544: 1, H0178: 1, L0471: 1, H0024: 1, H0014: 1, S0028: 1, H0615: 1, H0606: 1, H0674: 1, S0364: 1, H0068: 1, S0366: 1, S0036: 1, H0135: 1, H0163: 1, H0087: 1, H0551: 1, T0067: 1, H0561: 1, S0440: 1, S0150: 1, H0649: 1, S0142: 1, S0422: 1, H0529: 1, L0369: 1, L0762: 1, L0638: 1, L0772: 1, L0646: 1, L0644: 1, L0771: 1, L0773: 1, L0768: 1, L0653: 1, L0633: 1, L0655: 1, L0658: 1, L0809: 1, L0543: 1, L0666: 1, L0665: 1, H0520: 1, H0690: 1, H0683: 1, H0659: 1, S0328: 1, S0378: 1, H0134: 1, S0404: 1, H0436: 1,
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103	HAIBR76	874298	113	137 - 355	2710	Ser-33 to Ala-45, Glu-48 to Lys-58.	H0478: 1, L0612: 1, L0743: 1, L0746: 1, L0597: 1, L0588: 1, S0276: 1, H0423: 1, S0424: 1, H0293: 1 and H0352: 1. L0747: 4, S0051: 3, L0758: 3, L0005: 2, S0132: 2, S0222: 2, S0346: 2, H0646: 2, L0809: 2, L0438: 2, L0439: 2, L0751: 2, L0750: 2, L0779: 2, L0752: 2, L0599: 2, L0600: 2, H0171: 1, S0444: 1, S0360: 1, S0010: 1, S0250: 1, H0032: 1, H0169: 1, L0456: 1, H0040: 1, L0351: 1, S0426: 1, L0763: 1, L0770: 1, L0794: 1, L0803: 1, L0805: 1, L0636: 1, L0517: 1, L0542: 1, L4501: 1, L0665: 1, H0144: 1, H0547: 1, H0658: 1, H0555: 1, H0436: 1, L0741: 1, L0754: 1, L0756: 1, L0731: 1, S0260: 1, L0362: 1, S0011: 1 and S0026: 1.	17pter-pl3.1	
104	HAIBT20	741086	114	286 - 393	2711	Pro-19 to Ser-28.	S0132: 1 and L0759: 1.		
105	HAIBV91	852223	115	90 - 194	2712		S0132: 1		
106	HAICE62	834523	116	363 - 380	2713		H0521: 18, H0677: 11, L0766: 9, L0803: 9, L0779: 7, L0777: 5, H0657: 4, S0360: 4, H0580: 4, L0770: 4, H0542: 4, H0543: 4, H0575: 3, S0474: 3, S0214: 3, H0622: 3, L0655: 3, H0547: 3, H0265: 2, H0583: 2, H0656: 2, H0661: 2, H0486: 2, H0013: 2, H0590: 2, H0581: 2, H0050: 2, H0242: 2, S0003: 2, H0674: 2, H0591: 2, H0551: 2, H0560: 2, H0641: 2, L0662: 2, L0804: 2, L0653: 2, L0776: 2, L0659: 2, L0664: 2, S0126: 2, H0658: 2, H0445: 2, H0624: 1, H0556: 1, H0650: 1, H0341: 1,	2	

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107	HAICL90	637491	117	140 - 259	2714		L0754: 4, S0132: 3, S0444: 2, L0750: 2, H0689: 1, H0522: 1 and H0423: 1.				
108	HAICV44	772534	118	232 - 312	2715		L0740: 9, L0439: 7, S0360: 5, L0770: 4, L0665: 4, L0748: 4, L0747: 4, L0752: 4, H0431: 3, H0574: 3, L0105: 3, H0553: 3, L0766: 3, L0774: 3, L0776: 3, L0438: 3, H0478: 3, L0749: 3, L0731: 3, H0662: 2, S0007: 2, S0046: 2, L0717: 2, H0156: 2, H0560: 2, H0649: 2, L0773: 2, L0666: 2, H0547: 2, L0754: 2, L0756: 2, L0605: 2, L0362: 2, S0242: 2, H0686: 1, S0212: 1, S0420: 1, S0358: 1, S0376: 1, S0132: 1, H0351: 1, H0497: 1, L0021: 1, H0575: 1, H0590: 1, H0421: 1, H0596: 1, H0231: 1.	11q23.3	176000, 261640, 602574, 602574		

109	HAIDP45	847015	119	255 - 332	2716			1, L0041: 1, H0086: 1, L0471: 1, S6028: 1, H0687: 1, S0003: 1, H0039: 1, L0194: 1, H0032: 1, H0124: 1, S0036: 1, H0090: 1, H0551: 1, H0268: 1, H0059: 1, H0494: 1, H0646: 1, S0208: 1, L0763: 1, L0769: 1, L0646: 1, L0374: 1, L0389: 1, L0775: 1, L0806: 1, L0659: 1, L0664: 1, L0352: 1, H0520: 1, H0658: 1, H0672: 1, H0539: 1, L0602: 1, H0696: 1, H0555: 1, S0206: 1, L0744: 1, L0753: 1, L0759: 1, L0589: 1, L0366: 1, S0026: 1, S0194: 1, S0276: 1, S0196: 1 and S0424: 1.		
110	HAJAB88	780114	120	126 - 404	2717	Typ-23 to Ala-28,		L0439: 8, L0777: 8, L0666: 4, S0010: 3, H0615: 3, L0637: 3, L0659: 3, L0664: 3, H0648: 3, L0748: 3, L0731: 3, S0412: 3, S0132: 2, S0476: 2, S0222: 2, H0497: 2, H0031: 2, L0774: 2, L0665: 2, H0144: 2, L0438: 2, L0754: 2, L0757: 2, L0758: 2, S0194: 2, H0171: 1, H0265: 1, H0717: 1, S0110: 1, H0669: 1, S0358: 1, S0300: 1, H0369: 1, H0550: 1, S6016: 1, S0414: 1, H0013: 1, H0427: 1, H0599: 1, H0327: 1, H0123: 1, H0553: 1, H0628: 1, H0032: 1, H0264: 1, H0488: 1, S0438: 1, L0769: 1, L0805: 1, L0809: 1, L0663: 1, S0374: 1, S0148: 1, H0435: 1, H0659: 1, H0670: 1, S0328: 1, S0004: 1, H0696: 1, L0744: 1, L0753: 1, L0755: 1, L0759: 1, S0031: 1, S0434: 1, H0667: 1 and H0506: 1.	L0776: 6, L0775: 5, L0769: 19p13.1	143890, 151440,

						Pro-39 to Gly-65.		4, L0779: 4, S0358: 3, H0038: 3, L0809: 3, L0747: 3, H0445: 3, H0620: 2, S0051: 2, H0616: 2, L0763: 2, L0770: 2, L0766: 2, L0666: 2, H0658: 2, L0777: 2, L0755: 2, L0759: 2, H0171: 1, H0556: 1, H0686: 1, S0134: 1, H0661: 1, H0638: 1, H0125: 1, S0420: 1, S0354: 1, S0376: 1, H0393: 1, S6026: 1, S0300: 1, H0392: 1, H0013: 1, H0599: 1, S0010: 1, H0318: 1, S0049: 1, H0085: 1, L0040: 1, H0545: 1, H0012: 1, H0271: 1, H0553: 1, H0135: 1, H0040: 1, H0551: 1, H0561: 1, S0142: 1, L0520: 1, L0803: 1, L0375: 1, L0806: 1, L0782: 1, L0647: 1, H0547: 1, S0126: 1, H0659: 1, H0660: 1, H0666: 1, S0380: 1, S0152: 1, S0118: 1, L0745: 1, L0757: 1, L0485: 1, H0543: 1 and H0422: 1.			600173, 600276, 600310, 600310, 601604, 601843
111	HAAJAZ56	716168	121	300 - 407	2718			L0770: 4, H0457: 3, L0756: 2, L0759: 2, H0663: 1, H0587: 1, H0013: 1, H0427: 1, H0318: 1, H0594: 1, S0003: 1, H0561: 1, H0529: 1, L0805: 1, L0776: 1, L0655: 1, L0791: 1, L0754: 1, L0755: 1, L0757: 1, L0758: 1 and L0594: 1.			
112	HAMFQC67	588488	122	282 - 500	2719	Val-34 to Glu-39.		L0766: 4, H0657: 1, H0486: 1, H0013: 1, H0644: 1, L0456: 1, H0560: 1, L0662: 1, L0804: 1, L0774: 1, L0793: 1, S0328: 1, L0439: 1, L0749: 1 and H0543: 1.			
113	HAMFQ38	610051	123	90 - 203	2720	Thr-22 to Lys-30.		L0777: 5, L0766: 3, L0803: 3, L0439: 3, S0360: 2, L0598: 2, L0666: 2, L0748: 2, T0049: 1	21q22.2	176261, 601399	

114	HAMGG01	783864	124	644 - 697	2721			1, S0134: 1, S0116: 1, L0717: 1, H0586: 1, H0486: 1, H0575: 1, H0510: 1, H0553: 1, H0560: 1, S0422: 1, L0763: 1, L0769: 1, L0521: 1, L0767: 1, L0768: 1, L0775: 1, L0663: 1, S0374: 1, L0438: 1, H0520: 1, H0682: 1, S0328: 1, L0740: 1, L0757: 1, S0192: 1 and H0543: 1. AR060: 2, AR316: 2, AR089: 2 L0766: 5, S0418: 3, H0144: 3, L0777: 3, L0758: 3, L0769: 2, L0771: 2, L0378: 2, L0663: 2, L0740: 2, L0485: 2, H0556: 1, S0134: 1, H0657: 1, H0484: 1, S0420: 1, L0717: 1, S0222: 1, H0270: 1, T0039: 1, L0021: 1, H0263: 1, H0266: 1, H0687: 1, H0252: 1, H0604: 1, H0628: 1, H0617: 1, H0606: 1, H0135: 1, H0100: 1, H0560: 1, H0561: 1, L0796: 1, L0639: 1, L0646: 1, L0764: 1, L0768: 1, L0794: 1, L0774: 1, L0776: 1, L0783: 1, L0383: 1, L0519: 1, L0789: 1, L0793: 1, L0666: 1, L0438: 1, S0328: 1, H0521: 1, H0696: 1, H0134: 1, L0439: 1, L0751: 1, L0747: 1, L0779: 1, L0752: 1, L0731: 1, S0436: 1, L0593: 1 and H0665: 1. AR089: 15, AR316: 11, AR060: 9 L0540: 5, S0002: 2, L0663: 2, L0596: 2, S0354: 1, S0376: 1, S0360: 1, H0574: 1, S0049: 1, L0738: 1, L0041: 1, H0051: 1, S0318: 1, S0316: 1, S0036: 1, S0426: 1, L0764: 1, L0662: 1	11q23	107680, 107680, 107680, 107680, 107680, 107720, 133780, 147791, 159555, 168000, 186740, 186830, 188025, 203750, 261640, 600048, 601382, 602574, 602574
115	HANGB24	664478	125	199 - 399	2722	Ala-17 to Gln-23.		AR089: 15, AR316: 11, AR060: 9 L0540: 5, S0002: 2, L0663: 2, L0596: 2, S0354: 1, S0376: 1, S0360: 1, H0574: 1, S0049: 1, L0738: 1, L0041: 1, H0051: 1, S0318: 1, S0316: 1, S0036: 1, S0426: 1, L0764: 1, L0662: 1		

116	HANKC93	847018	126	198 - 317	2723	Lys-18 to Gly-23, Arg-25 to Ser-31.	1, L0794: 1, L0804: 1, L0774: 1, L0776: 1, L0666: 1, S0374: 1 and L0748: 1. AR089: 33, AR316: 23, AR060: 13 L0109: 1, S0318: 1, S0316: 1, H0163: 1, L0756: 1 and L0601: 1. H0042: 1	1, L0794: 1, L0804: 1, L0774: 1, L0776: 1, L0666: 1, S0374: 1 and L0748: 1.	
117	HAPAD35	840584	127	50 - 154	2724		L0766: 8, H0677: 6, L0759: 5, L0794: 4, L0749: 4, L0662: 3, L0659: 3, L0809: 3, L0787: 3, H0436: 3, L0747: 3, H0716: 2, S0358: 2, H0486: 2, H0042: 2, L0769: 2, L0641: 2, L0764: 2, L0776: 2, L0792: 2, L0663: 2, L0438: 2, H0521: 2, L0779: 2, L0755: 2, L0731: 2, S0436: 2, L0588: 2, L0591: 2, H0624: 1, H0170: 1, H0717: 1, H0650: 1, S0282: 1, H0255: 1, H0261: 1, S0222: 1, H0592: 1, H0587: 1, H0632: 1, L0623: 1, T0060: 1, T0114: 1, H0013: 1, T0048: 1, H0052: 1, L0055: 1, H0674: 1, S0036: 1, H0040: 1, H0616: 1, H0551: 1, H0264: 1, L0351: 1, S0370: 1, L0637: 1, L0761: 1, L0372: 1, L0646: 1, L0642: 1, L0767: 1, L0768: 1, L0774: 1, L0775: 1, L0378: 1, L0805: 1, L0633: 1, L0791: 1, L0666: 1, L0664: 1, S0374: 1, L0352: 1, H0519: 1, H0689: 1, H0435: 1, H0518: 1, L0439: 1, L0750: 1, S0434: 1 and L0599: 1.		
118	HAPBR13	609976	128	125 - 283	2725		AR089: 58, AR316: 46, AR060: 36 L0439: 18, H0521: 9, H0618: 6, H0253: 6, H0457: 5, L0438:	19p13.3-p13.2	108725, 120700, 133171, 136836, 143890, 145981, 147141, 147670.
119	HAPBU09	762803	129	247 - 384	2726				

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120	HAPBU86	789544	130	403 - 510	2727	Ser-20 to Asp-25.		L0752: 7, L0439: 5, L0438: 2, S0356: 1, H0013: 1, H0042: 1, T0023: 1, H0166: 1, H0591: 1, L0803: 1, L0515: 1, L0659: 1, L0647: 1, L0789: 1, H0539: 1, L0731: 1 and H0352: 1.	4p16.1	142983, 222300			
121	HAPBU86	864890	131	403 - 510	2728	Ser-20 to Asp-25.		L0752: 7, L0439: 5, L0438: 2, S0356: 1, H0013: 1, H0042: 1, T0023: 1, H0166: 1, H0591: 1, L0803: 1, L0515: 1, L0659: 1, L0647: 1, L0789: 1, H0539: 1, L0731: 1 and H0352: 1.	4p16.1	142983, 222300			
122	HAPNJ33	835554	132	1872 - 2084	2729	Leu-36 to Ser-49.		AR277: 18, AR244: 15, AR277: 1 and H0352: 1.	3p13-q13.33	156845, 156845.			

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123	HAPNL62	790340	133	701 - 1009	2730	Glu-45 to Thr-63.	AR060: 4, AR316: 4, AR089: 4 L0717: 5, L0794: 4, L0803: 4, L0770: 3, L0766: 3, L0779: 3, L0755: 3, S0222: 2, L0761: 2, L0764: 2, L0809: 2, L0519: 2, L0666: 2, L0438: 2, H0659: 2, H0436: 2, L0754: 2, L0747: 2, L0750: 2, L0756: 2, L0777: 2, L0758: 2, L0588: 2, L0599: 2, L0604: 2, H0624: 1, H0171: 1, H0657: 1, H0663: 1, H0305: 1, S0420: 1, S0376: 1, H0580: 1, H0639: 1, H0497: 1, H0575: 1, H0318: 1, S0474: 1, T0110: 1, H0123: 1, T0003: 1, H0024: 1, S6028: 1, H0266: 1, H0328: 1, H0553: 1, H0090: 1, S0422: 1, H0529: 1, L0501: 1, L0667: 1, L0642: 1, L0521: 1, L0767: 1, L0650: 1, L0774: 1, L0806: 1, L0655: 1, L0657: 1, L0659: 1, L0792: 1, L0663: 1, L0664: 1, H0144: 1, H0520: 1, H0683: 1, H0648: 1, H0672: 1, H0539: 1, S0044: 1, H0555: 1, L0745: 1, L0749: 1, L0786: 1, L0780: 1, L0591: 1, S0011: 1, H0665: 1, H0542: 1, H0543: 1, H0423: 1 and H0422: 1.	11pter-p15.5	
124	HAPNO50	834384	134	205 - 315	2731		AR060: 6, AR089: 3, AR316: 3, AR215: 3, AR311: 3, AR213: 3, AR223: 3, AR282: 3, AR207: 3, AR197: 2, AR296: 2, AR254: 2, AR168: 2, AR266: 2, AR270: 2, AR277: 2, AR283: 1, AR216: 1, AR271: 1, AR183: 1,		

125	HAPNY10	702037	135	33 - 167	2732		AR171: 1, AR165: 1, AR096: 1, AR264: 1 L0439: 10, L0779: 6, L0794: 5, L0774: 4, L0375: 4, L0747: 4, H0661: 3, L0771: 3, L0803: 3, L0809: 3, L0750: 3, L0777: 3, S0358: 2, S0360: 2, H0318: 2, H0052: 2, H0150: 2, H0024: 2, H0038: 2, T0042: 2, L0800: 2, L0768: 2, L0766: 2, H0672: 2, L0743: 2, H0624: 1, H0265: 1, H0294: 1, T0049: 1, H0650: 1, H0341: 1, H0125: 1, S0420: 1, L0005: 1, H0733: 1, H0438: 1, L0021: 1, H0575: 1, S0010: 1, S0049: 1, H0263: 1, H0545: 1, H0620: 1, S0051: 1, H0083: 1, H0594: 1, S6028: 1, H0687: 1, H0252: 1, H0644: 1, L0456: 1, H0551: 1, H0413: 1, L0434: 1, S0450: 1, S0472: 1, L0769: 1, L0372: 1, L0764: 1, L0773: 1, L0775: 1, L0659: 1, L0791: 1, L0665: 1, L0438: 1, H0593: 1, S0378: 1, H0704: 1, S3012: 1, L0740: 1, L0756: 1, L0786: 1, L0757: 1, L0759: 1, S0260: 1, L0366: 1 and H0506: 1. AR089: 25, AR316: 20, AR060: 16 L0766: 13, L0770: 9, S0003: 8, L0439: 8, L0754: 8, L0665: 7, L0731: 6, L0485: 6, L0776: 5, L0740: 5, H0641: 4, L0771: 4, L0775: 4, L0666: 4, L0663: 4, H0521: 4, L0741: 4, L0752: 4, S0356: 3, S0360: 3, L0717: 3, H0013: 3, H0014: 3, L0598: 3, H0547: 3, H0659: 3, L0748: 3, L0749: 3, L0777: 3, L0759:	2p24.3-p24.1	602134	
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126	HAPPW83	847020	136	66 - 98	2733	<p>3, S0424: 3, S0212: 2, L0005: 2, S0358: 2, S0376: 2, S0408: 2, S0410: 2, S0222: 2, H0575: 2, H0421: 2, H0615: 2, H0428: 2, H0424: 2, H0644: 2, S0440: 2, S0422: 2, H0529: 2, L0369: 2, L0772: 2, L0773: 2, L0662: 2, L0649: 2, L0655: 2, L0659: 2, L0526: 2, L0518: 2, H0144: 2, S0404: 2, L0750: 2, L0756: 2, L0758: 2, S0260: 2, L0604: 2, L0595: 2, H0170: 1, H0556: 1, T0002: 1, S0134: 1, S0218: 1, H0661: 1, H0638: 1, S0418: 1, H0637: 1, H0580: 1, H0728: 1, L0149: 1, S0045: 1, S0476: 1, H0441: 1, H0455: 1, H0574: 1, H0486: 1, H0156: 1, T0082: 1, H0590: 1, H0505: 1, L0157: 1, H0083: 1, H0375: 1, H0687: 1, H0290: 1, T0006: 1, H0213: 1, L0055: 1, H0032: 1, H0674: 1, H0316: 1, H0591: 1, H0038: 1, H0560: 1, H0625: 1, S0448: 1, S0142: 1, S0002: 1, UNKWN: 1, L0762: 1, L0640: 1, L0768: 1, L0803: 1, L0774: 1, L0784: 1, L0805: 1, L0783: 1, L0519: 1, H0701: 1, S0310: 1, L0438: 1, L0352: 1, H0520: 1, H0519: 1, S0122: 1, H0690: 1, H0682: 1, H0660: 1, H0666: 1, H0648: 1, S0328: 1, H0539: 1, H0522: 1, S0406: 1, S0028: 1, L0751: 1, L0786: 1, L0755: 1, L0592: 1, L0599: 1, L0608: 1, L0601: 1, S0011: 1 and H0653: 1.</p> <p>H0250: 7, L0748: 4, H0575: 2, H0457: 2, L0665: 2, S0192: 2</p>	
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127	HAPQJ73	580802	137	286 - 336	2734			2, H0624: 1, H0295: 1, S0442: 1, H0580: 1, H0609: 1, H0050: 1, S0022: 1, H0628: 1, H0598: 1, H0090: 1, H0551: 1, L0642: 1, L0662: 1, L0767: 1, L0768: 1, L0655: 1, L0659: 1, L0542: 1, L0666: 1, S0374: 1, H0547: 1, H0521: 1, H0522: 1, L0740: 1 and S0026: 1. AR089: 5, AR316: 4, AR060: 4 L0754: 9, L0745: 9, L0766: 5, L0665: 3, H0547: 3, H0251: 2, S0438: 2, L0646: 2, L0771: 2, L0649: 2, L0803: 2, L0774: 2, L0659: 2, L0663: 2, L0664: 2, L0599: 2, L0362: 2, H0170: 1, S0134: 1, H0661: 1, S0442: 1, H0580: 1, H0411: 1, H0486: 1, H0013: 1, H0635: 1, H0575: 1, H0590: 1, H0546: 1, H0545: 1, L0157: 1, H0553: 1, H0628: 1, H0090: 1, H0551: 1, H0059: 1, H0560: 1, S0440: 1, S0422: 1, L0598: 1, L0762: 1, L0638: 1, L0648: 1, L0662: 1, L0794: 1, L0650: 1, L0806: 1, L0655: 1, L0790: 1, H0660: 1, S0330: 1, L0439: 1, L0779: 1, L0777: 1, L0759: 1, L0589: 1 and L0592: 1. AR060: 3, AR316: 2, AR089: 1 H0575: 1 and H0046: 1.	
128	HAPQK26	637494	138	300 - 338	2735			AR240: 17, AR243: 15, AR246: 14, AR271: 14, AR242: 12, AR272: 11, AR197: 7, AR161: 7, AR162: 7, AR245: 7, AR163: 6, AR282: 6,	4p15.3-p15.1
129	HAPQU71	752580	139	1324 - 1485	2736	Pro-28 to Ser-35.			

									AR198: 6, AR053: 5, AR165: 5, AR195: 5, AR309: 5, AR089: 5, AR204: 5, AR166: 5, AR164: 4, AR193: 4, AR274: 4, AR313: 4, AR254: 4, AR275: 4, AR201: 4, AR207: 3, AR060: 3, AR096: 3, AR311: 3, AR264: 3, AR235: 3, AR312: 3, AR039: 3, AR250: 3, AR263: 3, AR316: 2, AR205: 2, AR291: 2, AR104: 2, AR277: 2, AR247: 2, AR174: 2, AR267: 2, AR055: 2, AR217: 2, AR229: 2, AR300: 2, AR181: 2, AR185: 2, AR176: 2, AR182: 2, AR213: 2, AR283: 2, AR177: 2, AR308: 1, AR257: 1, AR212: 1, AR175: 1, AR261: 1, AR299: 1, AR228: 1, AR033: 1, AR222: 1, AR171: 1, AR199: 1, AR289: 1, AR224: 1, AR061: 1, AR233: 1, AR255: 1, AR252: 1, AR227: 1 H0575: 7, L0751: 5, H0042: 4, L0664: 3, L0665: 3, H0046: 2, H0024: 2, H0658: 2, L0599: 2, H0685: 1, H0663: 1, H0477: 1, S0016: 1, L0639: 1, L0662: 1, L0775: 1, L0806: 1, L0527: 1, L0657: 1, L0666: 1, H0690: 1, H0670: 1, H0666: 1, H0672: 1 and L0755: 1.
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130	HAPQU71	864781	140	1324 - 1485	2737	Pro-28 to Ser-35.	AR240: 17, AR243: 15, AR246: 14, AR271: 14, AR242: 12, AR272: 11, AR197: 7, AR161: 7, AR162: 7, AR245: 7, AR163: 6, AR282: 6, AR198: 6, AR053: 5, AR165: 5, AR195: 5, AR309: 5, AR089: 5, AR204: 5, AR166: 5, AR164: 4, AR193: 4, AR274: 4, AR313: 4, AR254: 4, AR275: 4, AR201: 4, AR207: 3, AR060: 3, AR096: 3, AR311: 3, AR264: 3, AR235: 3, AR312: 3, AR039: 3, AR250: 3, AR263: 3, AR316: 2, AR205: 2, AR291: 2, AR104: 2, AR277: 2, AR247: 2, AR174: 2, AR267: 2, AR055: 2, AR217: 2, AR229: 2, AR300: 2, AR181: 2, AR185: 2, AR176: 2, AR182: 2, AR213: 2, AR283: 2, AR177: 2, AR308: 1, AR257: 1, AR212: 1, AR175: 1, AR261: 1, AR299: 1, AR228: 1, AR033: 1, AR222: 1, AR171: 1, AR199: 1, AR289: 1, AR224: 1, AR061: 1, AR233: 1, AR255: 1, AR252: 1, AR227: 1 H0575: 7, L0751: 5, H0042: 4, L0664: 3, L0665: 3, H0046: 2, H0024: 2, H0658: 2, L0599:	4pl5.3-pl5.1	
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131	HAPQW18	610052	141	20 - 133	2738		2, H0685: 1, H0663: 1, H0477: 1, S0016: 1, L0639: 1, L0662: 1, L0775: 1, L0806: 1, L0527: 1, L0657: 1, L0666: 1, H0690: 1, H0670: 1, H0666: 1, H0672: 1 and L0755: 1.		
132	HAPQX44	779053	142	515 - 568	2739		L0794: 2, L0789: 2, L0663: 2, L0779: 2, H0575: 1, L0761: 1, L0803: 1, L0805: 1, L0512: 1, L0809: 1, L0666: 1, L0748: 1 and L0731: 1.		
133	HAPRK55	735887	143	172 - 288	2740		H0305: 4, L0805: 3, L0747: 3, H0040: 2, L0803: 2, S0410: 1, H0580: 1, S0300: 1, H0587: 1, H0486: 1, H0575: 1, H0318: 1, S6028: 1, H0598: 1, H0551: 1, H0560: 1, L0773: 1, H0435: 1, H0539: 1, L0758: 1, S0436: 1, H0542: 1 and H0543: 1.		
134	HAPSH37	847021	144	251 - 421	2741		L0758: 2 and H0575: 1. AR089: 26, AR316: 21, AR060: 16 L0439: 7, L0809: 4, L0751: 4, L0659: 3, H0144: 3, L0438: 3, L0758: 3, S0360: 2, L0766: 2, L0803: 2, H0658: 2, L0743: 2, L0744: 2, L0754: 2, L0777: 2, H0716: 1, H0657: 1, H0341: 1, S0212: 1, H0664: 1, H0125: 1, S0376: 1, H0580: 1, H0431: 1, H0331: 1, H0575: 1, H0263: 1, H0596: 1, T0010: 1, H0510: 1, S6028: 1, H0039: 1, H0622: 1, H0553: 1, L0055: 1, H0090: 1, H0264: 1, H0413: 1, L0564: 1, L0475: 1, H0649: 1, L0770: 1, L0772: 1, L0643: 1, L0764: 1, L0662: 1, L0775: 1, L0805: 1, L0776: 1, L0657: 1, L0792: 1, L0663: 1, H0659: 1, H0648: 1.		

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135	HAQBG57	837545	145	170 - 340	2742	Trp-10 to Lys-18, Val-32 to Cys-38, Asp-41 to Thr-47.		H0295: 6, H0255: 2, H0392: 1, H0587: 1, H0333: 1, H0545: 1, H0328: 1, H0616: 1, S0142: 1, H0529: 1, L0659: 1, L0783: 1, L0528: 1, H0547: 1, S0136: 1, S0390: 1, L0754: 1, L0747: 1 and L0752: 1.			
136	HAQBY85	832384	146	192 - 293	2743			AR060: 5, AR316: 5, AR089: 4 L0749: 5, L0777: 3, L0526: 2, L0438: 2, H0547: 2, H0295: 1, S0420: 1, S0356: 1, S0354: 1, S0222: 1, H0586: 1, H0497: 1, L0021: 1, H0553: 1, H0169: 1, H0163: 1, S0440: 1, S0422: 1, L0598: 1, L0769: 1, L0764: 1, L0766: 1, L0633: 1, L0657: 1, L0783: 1, L0793: 1, L0665: 1, H0144: 1, H0519: 1, S0330: 1, L0439: 1, L0731: 1, S0436: 1, L0592: 1, L0485: 1, L0608: 1, L0601: 1 and S0194: 1.	X		
137	HAQBZ15	801966	147	671 - 826	2744			AR235: 19, AR291: 19, AR289: 17, AR266: 17, AR261: 17, AR238: 17, AR297: 16, AR243: 16, AR296: 15, AR283: 15, AR269: 15, AR257: 15, AR286: 15, AR287: 14, AR275: 14, AR299: 14, AR183: 14, AR285: 14, AR268: 13, AR182: 13, AR176: 13, AR163: 13, AR161: 13, AR197: 13, AR288: 13, AR165: 13, AR162: 13, AR239: 13,	2q35		118800, 123660, 125660, 125660, 193500, 193500, 193500, 193500, 201460, 205100, 237300, 262000, 600266, 601277

									AR192: 12, AR271: 12, AR204: 12, AR195: 12, AR260: 12, AR236: 12, AR246: 12, AR255: 12, AR270: 12, AR295: 12, AR198: 12, AR060: 12, AR089: 12, AR164: 12, AR256: 12, AR039: 11, AR193: 11, AR272: 11, AR166: 11, AR178: 11, AR274: 11, AR262: 11, AR309: 11, AR293: 11, AR177: 11, AR175: 11, AR191: 11, AR201: 11, AR173: 10, AR181: 10, AR258: 10, AR226: 10, AR185: 10, AR316: 10, AR229: 10, AR233: 10, AR205: 10, AR282: 10, AR189: 9, AR096: 9, AR245: 9, AR242: 9, AR174: 9, AR053: 9, AR218: 9, AR267: 9, AR232: 9, AR294: 9, AR247: 9, AR290: 9, AR207: 9, AR188: 9, AR172: 9, AR196: 8, AR168: 8, AR308: 8, AR213: 8, AR312: 8, AR254: 8, AR240: 8, AR313: 8, AR061: 8, AR237: 8, AR190: 8, AR210: 8, AR169: 8, AR033: 7, AR200: 7, AR228: 7, AR253: 7, AR180: 7, AR252: 7, AR203: 7, AR219: 7, AR231: 7, AR179: 7, AR250: 7, AR234: 7, AR300: 7, AR170: 7,		
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138	HAQCE18	604906	148	79 - 111	2745			H0295: 1, H0318: 1 and L0662: 1.					
139	HAQCF94	795993	149	89 - 166	2746			AR089: 33, AR316: 24, AR060: 16 H0556: 3, S0002: 2, L0518: 2, L0809: 2, H0696: 2, H0265: 1, H0295: 1, S0114: 1, S0134: 1, H0402: 1, H0431: 1, T0039: 1, H0050: 1, H0014: 1, S6028: 1, H0124: 1, H0634: 1, S0440: 1, L0774: 1, L0791: 1, H0660: 1, S0390: 1, S3014: 1, S0032: 1, L0748: 1, L0754: 1, L0750: 1, S0031: 1, H0444: 1, S0026: 1 and L0697: 1.					

140	HARAE26	560598	150	225 - 518	2747	Pro-52 to Cys-57.	AR089: 35, AR316: 29, AR060: 23 T0082: 1		
141	HARAT69	769389	151	422 - 1426	2748	Pro-29 to Lys-40, Glu-66 to Phe-79, Arg-112 to Gly-121, Thr-128 to Lys-140, Lys-158 to Ser-168.	AR241: 9, AR263: 9, AR246: 8, AR205: 7, AR244: 7, AR206: 7, AR186: 7, AR204: 7, AR271: 6, AR202: 6, AR273: 6, AR249: 5, AR274: 5, AR192: 5, AR060: 5, AR312: 5, AR243: 5, AR198: 4, AR053: 4, AR253: 4, AR055: 4, AR183: 4, AR275: 4, AR052: 4, AR313: 4, AR039: 4, AR251: 4, AR309: 4, AR194: 4, AR292: 4, AR061: 4, AR316: 4, AR295: 4, AR293: 4, AR282: 3, AR185: 3, AR104: 3, AR089: 3, AR265: 3, AR310: 3, AR033: 3, AR267: 3, AR238: 3, AR213: 3, AR096: 3, AR270: 3, AR229: 3, AR299: 3, AR240: 3, AR294: 3, AR269: 3, AR283: 3, AR291: 3, AR175: 2, AR177: 2, AR231: 2, AR286: 2, AR237: 2, AR182: 2, AR268: 2, AR300: 2, AR259: 2, AR258: 2, AR226: 2, AR298: 2, AR285: 2, AR277: 2, AR256: 2, AR234: 2, AR219: 2, AR247: 2, AR233: 2, AR289: 2, AR218: 2,		

							AR284: 2, AR227: 1, AR296: 1, AR232: 1, AR290: 1 S0276: 9, L0439: 4, H0559: 2, H0620: 2, L0507: 2, L0803: 2, H0144: 2, L0438: 2, S0040: 1, S0001: 1, T0082: 1, H0581: 1, H0078: 1, H0266: 1, S0022: 1, H0038: 1, S0002: 1, L0794: 1, L0375: 1, L0805: 1, L0509: 1, L0493: 1, L0659: 1, H0547: 1, H0658: 1, L0749: 1, L0779: 1, L0755: 1, L0588: 1, L0605: 1, L0599: 1, H0216: 1 and S0194: 1.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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					H0013: 23, H0046: 20, H0144: 18, L0769: 13, L0439: 13, L0662: 11, L0758: 10, H0009: 9, H0556: 8, T0010: 8, L0764: 8, L0748: 8, L0759: 8, S0001: 7, L0776: 7, L0659: 7, S0360: 6, S0007: 6, H0266: 6, L0749: 6, L0750: 6, L0594: 6, H0457: 5, L0761: 5, L0754: 5, L0589: 5, L0592: 5, H0265: 4, H0706: 4, S0010: 4, H0264: 4, L0351: 4, S0002: 4, L0638: 4, L0806: 4, L0805: 4, L0783: 4, L0666: 4, L0565: 4, S0126: 4, H0658: 4, L0745: 4, H0294: 3, H0255: 3, L0005: 3, S0046: 3, H0244: 3, H0178: 3, L0471: 3, H0012: 3, H0620: 3, H0428: 3, H0622: 3, H0551: 3, H0100: 3, L0770: 3, L0637: 3, L0774: 3, L0775: 3, L0665: 3, H0672: 3, H0696: 3, L0740: 3, L0608: 3, S0045: 2, H0619: 2, H0645: 2, H0351: 2, S0278: 2, S0005: 2, H0599: 2, T0082: 2, H0004: 2, H0052: 2, S0250: 2, H0424: 2, H0038: 2, H0616: 2, H0623: 2, S0440: 2, S0344: 2, L0372: 2, L0771: 2, L0768: 2, L0766: 2, L0649: 2, L0518: 2, L0809: 2, S0148: 2, H0520: 2, S0330: 2, L0602: 2, S0152: 2, H0521: 2, S0406: 2, L0612: 2, S0027: 2, S0028: 2, L0743: 2, L0744: 2, L0755: 2, S0031: 2, S0434: 2, L0591: 2, L0604: 2, L0366: 2, H0422: 2, S0040: 1, H0717: 1, H0716: 1, S6024: 1, H0583: 1, H0657: 1, H0341: 1, S0282: 1, H0662: 1, H0638: 1, S0418: 1, S0420:
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144	HASAX57	654833	154	136 - 252	2751			1, S0462: 1, H0506: 1 and H0008: 1. AR060: 4, AR316: 3, AR089: 1 L0777: 4, L0808: 1, S0045: 1, H0431: 1, L0021: 1, H0098: 1, H0575: 1, H0004: 1, H0374: 1, H0014: 1, H0373: 1, S0003: 1, L0803: 1, L0805: 1, L0731: 1, H0595: 1 and S0242: 1.			
145	HASAY07	834511	155	699 - 716	2752			L0770: 4, L0766: 3, L0777: 3, H0050: 2, S0003: 2, S0376: 1, S0444: 1, S0360: 1, H0580: 1, H0393: 1, H0592: 1, H0156: 1, H0575: 1, S0346: 1, T0071: 1, H0188: 1, H0615: 1, L0520: 1, L0649: 1, L0655: 1, L0606: 1, L0607: 1, L0658: 1, L0789: 1, L0663: 1, L0664: 1, H0518: 1, S0027: 1, H0445: 1, L0591: 1, L0592: 1 and L0595: 1.			
146	HATAE01	654834	156	76 - 168	2753						
147	HATAG52	598714	157	154 - 243	2754	Lys-21 to Gln-29.		L0742: 3, H0156: 2, L0005: 1, H0261: 1, L0105: 1, H0052: 1, L0157: 1, L0521: 1, L0768: 1, L0438: 1, H0670: 1, L0439: 1 and L0731: 1.			
148	HATAL05	847023	158	134 - 271	2755	Lys-11 to Met-16.		L0741: 5, H0052: 2, L0605: 2, H0550: 1, H0156: 1, H0135: 1, L0766: 1, S0310: 1, H0689: 1, H0187: 1, L0759: 1 and H0423: 1.	8q23-q24	131950, 153840, 216550, 600669, 601282, 601455, 602232	
149	HATBA90	588403	159	97 - 213	2756			H0156: 1			
150	HATBM71	598715	160	196 - 312	2757			H0156: 1			
151	HATCF80	780460	161	620 - 778	2758			L0777: 13, L0748: 12, L0749: 10, H0521: 9, L0740: 9, H0144: 8, H0013: 5, H0620: 5, L0803: 5, H0069: 4, L0754: 4, H0266: 3, S0250: 3, S0002: 4.	8q24.1-q24.2	188450, 188450, 188450	

[illegible]

152	HATC167	847024	162	158 - 253	2759	Glu-19 to Pro-27.	<p>1 and L0600: 1.</p> <p>H0556: 20, L0770: 7, H0265: 6, L0766: 6, L0779: 5, H0124: 4, H0144: 4, S0418: 3, S0046: 3, L0659: 3, L0747: 3, H0657: 2, H0638: 2, S0376: 2, H0486: 2, H0013: 2, H0069: 2, H0575: 2, H0318: 2, H0014: 2, H0634: 2, H0494: 2, L0475: 2, S0438: 2, H0538: 2, H0529: 2, L0662: 2, L0657: 2, L0666: 2, L0665: 2, S0027: 2, L0748: 2, L0751: 2, L0754: 2, H0445: 2, L0604: 2, H0668: 2, H0170: 1, H0713: 1, H0716: 1, H0730: 1, H0722: 1, S0278: 1, H0574: 1, T0060: 1, H0250: 1, H0156: 1, H0599: 1, T0082: 1, S0049: 1, H0544: 1, H0571: 1, H0081: 1, H0275: 1, H0083: 1, H0510: 1, H0188: 1, H0031: 1, H0617: 1, L0055: 1, H0264: 1, H0413: 1, H0561: 1, S0142: 1, S0344: 1, S0426: 1, L0369: 1, L0372: 1, L0646: 1, L0794: 1, L0803: 1, L0775: 1, L0375: 1, L0518: 1, L0809: 1, L5623: 1, L0789: 1, H0691: 1, H0726: 1, H0659: 1, H0658: 1, S0328: 1, S0380: 1, H0521: 1, S0406: 1, L0740: 1, L0749: 1, L0750: 1, L0756: 1, L0759: 1, S0436: 1, L0591: 1, L0581: 1, H0667: 1, H0136: 1, H0422: 1 and S0424: 1.</p>		
153	HATCJ27	847025	163	237 - 284	2760		<p>AR060: 3, AR316: 2</p> <p>S0358: 2, L0803: 2, L0731: 2, H0351: 1, H0586: 1, H0333: 1, H0156: 1, H0038: 1, S0378: 1, L0759: 1, S0026: 1, H0665: 1, S0242: 1, L0697: 1 and</p>		

154	HATCS79	848564	164	259 - 381	2761						S0398: 1. L0439: 4, L0766: 2, S0116: 1, H0156: 1 and L0758: 1.	X
155	HATCX03	899395	165	196 - 333	2762		Glu-34 to Ser-41.				AR089: 10, AR316: 8, AR060: 6 L0439: 9, L0758: 4, H0156: 3, H0052: 3, S0222: 2, H0038: 2, L0438: 2, L0745: 2, H0305: 1, S0010: 1, S0049: 1, H0616: 1, L0638: 1, L0805: 1, L0791: 1, L0792: 1, S0053: 1, L0756: 1 and L0752: 1.	
156	HATDE03	831097	166	428 - 568	2763						L0439: 19, L0758: 8, L0754: 7, S0126: 5, L0759: 4, L0766: 3, L0749: 3, L0756: 3, L0777: 3, H0486: 2, H0251: 2, H0641: 2, L0794: 2, L0775: 2, L0776: 2, L0809: 2, L0543: 2, S0328: 2, L0779: 2, L0731: 2, L0757: 2, L0599: 2, H0381: 1, S0212: 1, H0661: 1, S0358: 1, S0132: 1, S0222: 1, H0156: 1, H0098: 1, H0201: 1, H0615: 1, L0194: 1, H0551: 1, T0042: 1, L0763: 1, L0770: 1, L0646: 1, L0773: 1, L0364: 1, L0387: 1, L0375: 1, L0527: 1, L0783: 1, L0530: 1, L0665: 1, S0052: 1, H0144: 1, H0659: 1, H0670: 1, H0555: 1, L0743: 1, L0740: 1, L0751: 1, L0747: 1, L0780: 1, L0752: 1, H0445: 1, H0653: 1, H0665: 1, S0242: 1, H0543: 1 and S0424: 1.	16
157	HATDF41	785628	167	1066 - 1161	2764						AR089: 13, AR316: 11, AR060: 9 L0756: 6, H0156: 5, L0779: 5, L0439: 4, S0242: 4, L0731: 3, H0615: 2, L0666: 2, L0665: 2, L0740: 2, L0753: 2, S0418: 2.	14q22.1-q24.3

158	HATDH23	603959	168	98 - 106	2765			1, S0442: 1, H0393: 1, H0431: 1, H0486: 1, H0570: 1, L0471: 1, H0328: 1, H0673: 1, H0598: 1, H0038: 1, H0616: 1, L0351: 1, S0440: 1, H0652: 1, L0763: 1, L0638: 1, L0794: 1, L0775: 1, L0805: 1, L0776: 1, L0633: 1, L0657: 1, L0809: 1, H0682: 1, H0670: 1, H0539: 1, H0521: 1, H0696: 1, L0742: 1, L0749: 1, L0759: 1 and S0412: 1.		
159	HATDH55	847323	169	50 - 151	2766			AR089: 7, AR316: 6, AR060: 6 L0439: 6, L0438: 4, L0766: 3, S0040: 2, L0794: 2, L0789: 2, L0745: 2, S0134: 1, S0222: 1, S0220: 1, H0156: 1, H0031: 1, L0804: 1, H0691: 1, S0152: 1, L0740: 1, L0749: 1, L0758: 1 and L0366: 1. L0794: 4, H0574: 3, L0803: 3, L0659: 3, S0028: 3, S0212: 2, S0360: 2, H0575: 2, H0038: 2, L0770: 2, L0751: 2, T0049: 1, H0583: 1, L0005: 1, S0442: 1, S0354: 1, S0444: 1, S0408: 1, L0717: 1, H0411: 1, H0587: 1, H0486: 1, H0156: 1, H0098: 1, H0581: 1, H0421: 1, H0327: 1, L0471: 1, H0024: 1, H0015: 1, H0687: 1, H0328: 1, H0553: 1, H0163: 1, H0616: 1, H0623: 1, S0440: 1, H0652: 1, L0371: 1, L0638: 1, L0637: 1, L0630: 1, L0646: 1, L0662: 1, L0515: 1, L0809: 1, L0663: 1, L0665: 1, H0144: 1, S0374: 1, H0658: 1, L0746: 1, L0750: 1, L0777: 1, L0758: 1, L0759: 1, S0260: 1, S0436: 1, H0667: 1 and	3p13-q23	156845, 156845, 156845, 164500, 182280, 227646, 261510, 600151, 600163, 601154

160	HATD084	609850	170	75 - 173			S0192: 1.		
161	HATDU01	847028	171	23 - 85	2767		H0156: 1		
					2768		H0521: 2, H0438: 1, H0156: 1, H0421: 1, H0615: 1, H0090: 1, H0633: 1, L0662: 1, L0518: 1, H0539: 1, L0589: 1, L0599: 1 and S0384: 1.		
162	HATDW05	566849	172	232 - 372	2769		H0156: 1		106150, 106150, 145260, 173870, 173870, 600759, 600996, 601744, 601975
163	HATEF13	782358	173	139 - 252	2770		L0794: 4, L0803: 3, L0766: 2, L0750: 2, S0360: 1, H0632: 1, H0156: 1, L0767: 1, L0790: 1, H0539: 1 and L0600: 1.	1q42	
164	HATEF64	571035	174	154 - 240	2771	Leu-8 to Tyr-13.	L0534: 2, S0126: 2, H0486: 1, H0156: 1, H0616: 1, L0794: 1, L0766: 1, L0806: 1, L0776: 1, L0787: 1, H0144: 1, H0547: 1, L0744: 1, L0758: 1 and L0592: 1.		
165	HATEH40	637513	175	230 - 328	2772		AR089: 10, AR316: 9, AR060: 8 S0422: 2, H0686: 1, H0662: 1, H0156: 1, H0253: 1, S0214: 1, H0328: 1, L0803: 1, L0774: 1, L0666: 1, L0755: 1 and H0595: 1.		
166	HATEI22	858585	176	2203 - 2328	2773		AR193: 4, AR263: 4, AR162: 3, AR252: 3, AR171: 3, AR165: 3, AR176: 3, AR272: 3, AR166: 3, AR235: 3, AR196: 3, AR180: 2, AR181: 2, AR264: 2, AR311: 2, AR282: 2, AR164: 2, AR161: 2, AR200: 2, AR174: 2, AR224: 2, AR203: 2, AR270: 2, AR243: 2, AR201: 2, AR089: 2,		

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167	HAUCC84	830672	177	265 - 513	2774	Glu-4 to Ala-9, Leu-35 to Ala-40.	1, L0756: 1, L0755: 1, L0584: 1, L0603: 1, H0543: 1, H0423: 1 and H0422: 1. H0271: 72, H0551: 18, S0356: 14, H0250: 14, H0416: 14, H0556: 13, H0295: 10, S0360: 10, H0585: 9, S0418: 9, L0666: 9, H0521: 9, H0522: 9, S0406: 9, H0294: 7, S0358: 7, H0635: 7, L0764: 7, S0408: 6, H0494: 6, L0659: 6, S0053: 6, S0126: 6, H0670: 6, S0404: 6, L0731: 6, L0757: 6, S0046: 5, S0132: 5, H0545: 5, L0800: 5, L0755: 5, H0265: 4, S0420: 4, H0546: 4, H0083: 4, H0179: 4, L0646: 4, L0664: 4, L0751: 4, L0779: 4, L0601: 4, S0196: 4, S0354: 3, H0086: 3, H0288: 3, H0622: 3, H0628: 3, H0412: 3, H0413: 3, S0440: 3, S0210: 3, L0763: 3, L0772: 3, L0775: 3, L0783: 3, S0428: 3, H0593: 3, L0602: 3, S0152: 3, S0434: 3, H0506: 3, H0583: 2, H0484: 2, S0376: 2, S0045: 2, H0411: 2, H0370: 2, H0587: 2, H0599: 2, H0544: 2, H0024: 2, H0634: 2, H0641: 2, L0765: 2, L0773: 2, L0662: 2, L0803: 2, L0774: 2, L0382: 2, L0809: 2, H0666: 2, H0648: 2, H0518: 2, H0576: 2, H0478: 2, S0114: 2, L0740: 2, L0747: 2, L0750: 2, L0758: 2, H0445: 2, L0596: 2, L0603: 2, H0665: 2, S0242: 2, H0624: 1, H0186: 1, S0040: 1, H0716: 1, S0116: 1, S0212: 1, H0255: 1, H0664: 1, H0662: 1, H0402: 1, H0638: 1, S0444: 1, T0008:	6p21.3	106300, 108800, 120290, 120290, 120810, 120820, 142857, 142858, 150270, 167250, 170261, 177900, 179450, 201910, 217000, 222100, 233100, 235200, 248611, 256550, 256550, 600202, 600261, 601868, 602280, 602475
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168	HAWAS41	877621	178	140 - 259	2775			H0265: 1, H0556: 1, S0134: 1, H0580: 1, H0441: 1, T0060: 1 and H0543: 1.					
169	HAWBA65	542056	179	228 - 365	2776			L0777: 6, L0748: 5, L0758: 5, L0439: 4, L0375: 3, L0531: 3, L0663: 3, L0747: 3, L0749: 3, L0596: 3, H0553: 2, H0644: 2, H0038: 2, L0803: 2, L0651: 2, L0809: 2, H0144: 2, L0438: 2, S0330: 2, L0740: 2, L0731: 2, L0591: 2, L0362: 2, L0603: 2, H0170: 1, H0686: 1, S0376: 1, S0360: 1, H0619: 1, H0549: 1, H0331: 1, T0060: 1, T0114: 1, H0013: 1, S0474: 1, H0421: 1, H0052: 1, H0597: 1, H0046: 1, H0009: 1, H0567: 1, H0050: 1.					

170	HBAGH64	801884	180	1074 - 1079	2777				1, L0471: 1, H0012: 1, H0510: 1, H0188: 1, H0615: 1, H0428: 1, H0059: 1, H0100: 1, S0002: 1, L0369: 1, L0763: 1, L0770: 1, L0769: 1, L0646: 1, L0800: 1, L0643: 1, L0764: 1, L0773: 1, L0662: 1, L0768: 1, L0509: 1, L0657: 1, L0789: 1, L0665: 1, S0374: 1, H0520: 1, H0519: 1, H0593: 1, H0684: 1, H0555: 1, H0478: 1, L0743: 1, L0754: 1, L0780: 1, L0757: 1, L0759: 1, S0436: 1, L0599: 1, L0604: 1, S0276: 1, S0196: 1, H0543: 1 and H0352: 1.	
171	HBAGV01	862000	181	17 - 109	2778				L0809: 4, L0766: 3, L0439: 3, H0624: 2, H0411: 2, L0794: 2, L0756: 2, L0731: 2, L0005: 1, H0599: 1, L0471: 1, S0051: 1, T0010: 1, H0266: 1, S0150: 1, L0637: 1, L0765: 1, L0803: 1, L0783: 1, H0144: 1, H0672: 1, S0392: 1, L0748: 1, L0779: 1, L0777: 1 and L0759: 1.	
172	HBAMC50	877577	182	101 - 244	2779	Arg-18 to Arg-24, Arg-40 to Lys-47.			L0803: 2, H0411: 1, H0587: 1, L0623: 1, L0652: 1, L0809: 1 and H0710: 1.	
173	HBAMC57	608189	183	168 - 200	2780				H0410: 1	
174	HBABA42	841010	184	646 - 771	2781				H0410: 2	
									L0752: 8, L0766: 6, L0754: 5, H0624: 4, H0013: 4, L0775: 4, L0666: 4, H0156: 3, L0803: 3, L0774: 3, L0659: 3, L0439: 3, L0740: 3, L0745: 3, L0756: 3, L0731: 3, H0171: 2, H0657: 2, S0003: 2, H0169: 2, L0662: 2, L0805: 2, L0776: 2, L0664: 2, L0665: 2, H0144: 2, S0126: 2	4

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175	HBBB08	736014	185	805 - 840	2782		H0374: 1				
176	HBBBE83	838591	186	106 - 297	2783	Pro-44 to Thr-54.	L0766: 11, L0745: 9, L0756: 9, L0752: 5, H0305: 3, S0414: 3, S0422: 3, L0439: 3, H0156: 2, H0374: 2, S0051: 2, L0754: 2, L0731: 2, L0757: 2, L0596: 2, L0717: 1, S0222: 1, H0486: 1, H0590: 1, S0010: 1, H0196: 1, H0194: 1, S0388: 1, H0494: 1, S0448: 1, L0065: 1, L0627: 1, L0772: 1, L0768: 1, L0774: 1.				

177	HBBMA11	787308	187	199 - 378	2784			1, L0375: 1, H0519: 1, S0328: 1, L0779: 1, L0777: 1 and S0106: 1.		
178	HBCAK10	810227	188	96 - 128	2785			H0389: 1 L0803: 4, L0663: 3, S0420: 2, L0666: 2, H0435: 2, L0748: 2, L0777: 2, S0116: 1, S0132: 1, H0370: 1, L0021: 1, S0422: 1, L0664: 1, H0658: 1, S0328: 1, L0749: 1, S0436: 1 and L0097: 1.		
179	HBCAK80	840585	189	124 - 243	2786			AR060: 18, AR316: 11, AR089: 5 L0803: 14, L0744: 13, L0754: 13, H0265: 12, L0731: 11, H0556: 9, H0031: 9, L0740: 9, L0758: 7, S0010: 6, H0038: 6, H0494: 6, L0776: 6, L0659: 6, L0757: 6, H0553: 5, H0561: 5, L0769: 5, L0439: 5, L0747: 5, L0599: 5, S0360: 4, H0253: 4, H0318: 4, H0052: 4, L0745: 4, L0591: 4, H0542: 4, H0543: 4, S0222: 3, H0497: 3, H0574: 3, H0013: 3, S0346: 3, H0457: 3, L0471: 3, H0083: 3, T0006: 3, H0264: 3, L0766: 3, L0663: 3, H0435: 3, H0670: 3, H0521: 3, H0522: 3, L0743: 3, L0751: 3, L0749: 3, H0445: 3, L0608: 3, H0685: 2, S0134: 2, H0650: 2, H0661: 2, S0420: 2, L0005: 2, H0580: 2, S0045: 2, H0370: 2, H0592: 2, S0280: 2, H0234: 2, H0546: 2, H0046: 2, L0157: 2, H0620: 2, H0014: 2, S6028: 2, H0266: 2, H0188: 2, S0250: 2, H0622: 2, L0142: 2, L0456: 2, H0040: 2, H0616: 2, H0100: 2, S0002: 2, L0763: 2,	2q37.1	181031

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180	HBCAQ48	525002	190	320 - 421	2787		H0556: 2, H0550: 2, H0581: 2, H0050: 2, H0509: 2, L0593: 2, S0040: 1, H0657: 1, H0656: 1, S0418: 1, H0619: 1, S0278: 1, H0370: 1, H0156: 1, H0052: 1, H0309: 1, H0327: 1, H0373: 1, H0083: 1, H0510: 1, T0023: 1, H0551: 1, H0264: 1, H0413: 1, T0041: 1, H0132: 1, H0529: 1, L0438: 1, H0547: 1, H0651: 1, H0539: 1, H0134: 1, S0390: 1, L0439: 1, S0260: 1, H0445: 1, L0601: 1, S0011: 1, H0665: 1 and H0423: 1.	3p25.3-3p24.1	193300, 193300, 227646, 601154		
181	HBCAY17	801885	191	281 - 376	2788	Pro-25 to Pro-31.	AR089: 39, AR316: 31, AR060: 25 L0439: 10, L0769: 3, H0455: 2, L0526: 2, L0438: 2, L0748: 2, L0751: 2, L0777: 2, L0411: 1, S0110: 1, S0001: 1, L0717: 1, S0222: 1, H0370: 1, L0563: 1, H0041: 1, H0687: 1, H0286: 1, H0413: 1, H0494: 1, S0344: 1, L0770: 1, L0793: 1, H0521: 1, H0187: 1, S0028: 1, L0786: 1 and L0752: 1.				
182	HBCGE46	658669	192	225 - 365	2789		S0334: 1				
183	HGBGA14	838123	193	298 - 408	2790	Pro-20 to Ser-28.	H0617: 6, L0666: 3, H0188:				

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184	HBGBE75	897455	194	161 - 328	2791	Tyr-19 to Ala-27, Asp-33 to Thr-43, Ala-45 to His-55.	AR089: 13, AR316: 12, AR060: 12 H0585: 9, H0617: 8, L0776: 4, L0755: 4, L0758: 4, H0295: 3, S0406: 3, H0484: 2, S0408: 2, H0251: 2, H0546: 2, H0188: 2, H0615: 2, S0440: 2, S0422: 2, L0770: 2, L0764: 2, L0806: 2, H0519: 2, L0748: 2, L0439: 2, L0740: 2, L0747: 2, L0753: 2, L0589: 2, H0265: 1, H0556: 1, H0141: 1, S0134: 1, H0254: 1, H0661: 1, S0356: 1, S0442: 1, S0222: 1, H0370: 1, H0486: 1, L0586: 1, S0049: 1, H0562: 1, L0471: 1, H0620: 1, H0024: 1, H0266: 1, H0292: 1, H0213: 1, H0181: 1, H0182: 1, H0606: 1, H0673: 1, S0364: 1, S0366: 1, H0598: 1, H0163: 1, H0087: 1, H0412: 1, H0059: 1, H0100: 1, H0494: 1, H0646: 1, L0763: 1, L0644: 1, L0363: 1, L0768: 1, L0649: 1, L0774: 1, L0775: 1, L0375: 1, L0653: 1, L0636: 1, L0518: 1, L0783: 1, L0809: 1, L0519: 1, L0665: 1, H0702: 1, H0547: 1, H0690: 1, H0684: 1, S0328: 1, S0330: 1, H0539: 1, S0380: 1, H0696: 1, H0134: 1, H0555: 1, H0447: 1, L0743: 1, L0750: 1, L0759: 1, H0542: 1, H0543: 1 and H0423: 1.			
185	HBGRP27	703166	195	109 - 132	2792		L0748: 6, L0740: 4, L0731:			

186	HBGFQ34	793803	196	86 - 199	2793	Ser-21 to Ser-26, Glu-32 to Pro-37.	4, L0717: 3, L0776: 3, L0439: 3, L0747: 3, L0749: 3, H0617: 2, L0774: 2, L0663: 2, L0779: 2, L0758: 2, H0402: 1, S0358: 1, S0360: 1, H0441: 1, H0250: 1, H0156: 1, S0024: 1, H0428: 1, H0181: 1, L0455: 1, H0380: 1, H0413: 1, L0772: 1, L0771: 1, L0766: 1, L0655: 1, L0661: 1, L0789: 1, L0532: 1, H0593: 1, H0689: 1, S0330: 1, L0743: 1, L0754: 1, L0755: 1, L0759: 1, L0588: 1 and H0543: 1. AR089: 13, AR316: 11, AR060: 10 H0615: 2 and H0606: 1.	11q13	102200, 106100, 131100, 131100, 131100, 133780, 147050, 153700, 161015, 164009, 168461, 168461, 168461, 180721, 180840, 191181, 193235, 209901, 232600, 259700, 259770, 600045, 600319, 600528, 601884
187	HBGML95	839192	197	90 - 431	2794	Glu-28 to Phe-33, Ala-56 to Gln-62.	AR089: 32, AR316: 27, AR060: 23 H0617: 1	16	
188	HBGMT60	840586	198	163 - 279	2795	Gly-27 to Met-38.	AR089: 43, AR316: 35, AR060: 28 H0617: 25, H0422: 5, H0181: 4, L0743: 4, H0549: 3, L0666: 3, H0658: 3, H0436: 3, H0543: 3, H0583: 2, H0402: 2, S0354: 2, H0486: 2, H0688: 2, S0366: 2, H0423: 2, H0663: 1, H0664: 1, S0358: 1, S0360: 1, S0045: 1, H0550: 1, S0222: 1, H0485: 1, H0590: 1, H0618: 1, H0457:	11	

189	HIBHAA53	603183	199	53 - 541	2796	Lys-44 to Thr-50, Gln-111 to Gly-118, Pro-123 to Tyr-129.	1, H0375: 1, H0266: 1, H0179: 1, H0634: 1, H0412: 1, H0509: 1, L0761: 1, L0774: 1, L0663: 1, H0689: 1, H0690: 1, H0648: 1, L0748: 1, L0779: 1, L0759: 1, S0308: 1, L0605: 1 and H0665: 1. AR313: 37, AR241: 31, AR089: 18, AR198: 17, AR299: 17, AR186: 16, AR204: 16, AR271: 15, AR229: 15, AR185: 15, AR192: 14, AR052: 14, AR096: 13, AR240: 13, AR300: 13, AR275: 13, AR293: 12, AR316: 12, AR238: 12, AR182: 12, AR184: 12, AR243: 12, AR247: 12, AR039: 12, AR053: 11, AR194: 11, AR312: 11, AR104: 11, AR060: 11, AR258: 11, AR273: 11, AR206: 10, AR226: 10, AR274: 10, AR218: 9, AR202: 9, AR246: 9, AR033: 9, AR251: 9, AR233: 9, AR269: 9, AR270: 9, AR282: 8, AR213: 8, AR292: 8, AR267: 8, AR237: 8, AR249: 8, AR177: 8, AR055: 8, AR205: 8, AR310: 7, AR175: 7, AR294: 7, AR309: 7, AR234: 7, AR061: 7, AR219: 7, AR277: 7, AR285: 7, AR296: 7, AR231: 7, AR290: 7, AR280: 7, AR286: 6, AR268: 6,		
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190	HBIAU43	840354	200	202 - 258	2797			AR315: 6, AR227: 6, AR179: 6, AR266: 6, AR244: 6, AR248: 5, AR298: 5, AR295: 5, AR183: 5, AR289: 5, AR259: 5, AR256: 5, AR291: 4, AR232: 4, AR284: 4, AR283: 4, AR314: 4, AR253: 3, AR281: 2, AR265: 2 S0029: 1		
								AR089: 12, AR316: 10, AR060: 8 L0751: 8, L0749: 3, H0179: 2, L0766: 2, L0789: 2, L0740: 2, L0747: 2, L0756: 2, L0731: 2, T0002: 1, H0333: 1, S0049: 1, H0024: 1, H0316: 1, L0369: 1, L0771: 1, L0806: 1, L0776: 1, L0666: 1, L0665: 1, H0521: 1, L0779: 1 and H0343: 1.		
191	HBIAW58	596805	201	17 - 109	2798	Tyr-15 to Asn-21.		S0049: 1		
192	HBIBB20	897484	202	153 - 368	2799	Pro-59 to Ala-64.		L0751: 8, L0439: 6, L0659: 5, L0438: 4, L0744: 4, L0754: 4, L0777: 4, S0046: 3, H0052: 3, H0009: 3, H0271: 3, L0662: 3, L0665: 3, L0747: 3, S0358: 2, H0586: 2, H0251: 2, H0100: 2, L0794: 2, L0803: 2, L0809: 2, H0519: 2, S0126: 2, L0749: 2, L0731: 2, L0757: 2, L0605: 2, H0170: 1, H0717: 1, H0295: 1, H0294: 1, L0785: 1, S0116: 1, H0483: 1, S0418: 1, S0045: 1, H0619: 1, H0550: 1, H0370: 1, H0592: 1, H0574: 1, H0427: 1, H0599: 1, T0082: 1, S0010: 1, S0049: 1, H0544: 1, H0545: 1, H0570: 1, H0051: 1, S0388: 1, H0356: 1, H0399: 1, H0266:		

193	HBIBF26	845743	203	655 - 1206	2800	Pro-67 to Ser-78, Thr-89 to Trp-96, Arg-114 to Ser-125, Ser-147 to Ala-155.	1, H0622: 1, L0194: 1, H0135: 1, H0412: 1, H0623: 1, H0059: 1, L0351: 1, T0042: 1, H0561: 1, S0294: 1, L0640: 1, L4747: 1, L5575: 1, L5565: 1, L0800: 1, L0764: 1, L0648: 1, L0768: 1, L0774: 1, L0776: 1, L0657: 1, L0559: 1, L0519: 1, L0789: 1, L0792: 1, L0666: 1, L0664: 1, H0520: 1, H0547: 1, S0328: 1, S0378: 1, S0152: 1, H0521: 1, S0190: 1, S0406: 1, H0436: 1, L0748: 1, L0759: 1, L0601: 1, L0366: 1 and H0423: 1.	20q11.21- q13.11	102700, 102700, 602025
						AR186: 30, AR061: 21, AR298: 20, AR314: 17, AR055: 17, AR104: 16, AR229: 15, AR259: 15, AR249: 15, AR284: 14, AR227: 14, AR292: 13, AR052: 12, AR233: 12, AR237: 12, AR033: 12, AR232: 11, AR182: 11, AR185: 11, AR280: 10, AR300: 10, AR170: 10, AR241: 10, AR283: 10, AR315: 10, AR299: 10, AR226: 10, AR273: 9, AR248: 9, AR282: 9, AR275: 9, AR294: 9, AR184: 9, AR293: 9, AR231: 8, AR234: 8, AR194: 8, AR265: 8, AR192: 7, AR206: 7, AR267: 7, AR238: 7, AR286: 7, AR175: 7, AR240: 7, AR295: 7, AR285: 6, AR213: 6, AR312: 6, AR266: 6, AR289: 6, AR313: 6,			

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									1, S0007: 1, S0132: 1, S0476: 1, H0393: 1, H0369: 1, H0550: 1, H0409: 1, H0256: 1, H0250: 1, H0042: 1, H0036: 1, H0318: 1, S0049: 1, H0050: 1, H0014: 1, H0375: 1, S6028: 1, H0266: 1, H0292: 1, H0428: 1, H0622: 1, H0031: 1, H0617: 1, S0364: 1, L0456: 1, H0135: 1, H0040: 1, H0379: 1, H0264: 1, H0056: 1, H0623: 1, H0100: 1, H0633: 1, H0649: 1, S0002: 1, H0529: 1, L0762: 1, L5575: 1, L0772: 1, L0646: 1, L0771: 1, L0773: 1, L0767: 1, L0768: 1, L0803: 1, L0805: 1, L0653: 1, L4501: 1, L0666: 1, H0689: 1, H0690: 1, H0682: 1, H0670: 1, H0522: 1, S0044: 1, H0436: 1, S0027: 1, L0744: 1, L0754: 1, L0749: 1, L0753: 1, L0731: 1, S0436: 1, H0653: 1, S0192: 1, H0542: 1, H0543: 1, H0423: 1 and S0424: 1.					
194	HBIBM33	852045	204	2 - 76	2801	Ser-11 to Gln-18.	AR089: 43, AR316: 38, AR060: 33 S0049: 1							
195	HBIBN67	598719	205	71 - 187	2802	Gly-23 to Thr-33.	L0754: 6, L0758: 4, L0794: 3, S0007: 2, H0586: 2, L0769: 2, L0766: 2, L0803: 2, S0126: 2, S0328: 2, L0748: 2, L0746: 2, S0116: 1, S0360: 1, H0333: 1, S0049: 1, H0309: 1, H0546: 1, H0178: 1, H0188: 1, L0371: 1, L0771: 1, L0804: 1, L0776: 1, L0659: 1, L0788: 1, L0789: 1, L0666: 1, L0665: 1, L0749: 1 and L0777: 1.							
196	HBIBQ69	580807	206	112 - 219	2803		AR089: 16, AR316: 12, AR060: 9							

197	HBIBR38	612783	207	27 - 74	2804		H0265: 1, S0049: 1 and S0428: 1.		
198	HBIBR61	824258	208	235 - 243	2805		S0049: 1 AR089: 4, AR316: 4, AR060: 3 L0741: 6, L0439: 5, L0742: 4, L0352: 3, S0010: 2, L0764: 2, L0768: 2, L0717: 1, H0013: 1, H0318: 1, S0049: 1, H0052: 1, H0009: 1, S0036: 1, H0135: 1, H0087: 1, L0351: 1, L0749: 1, L0755: 1, S0031: 1 and L0594: 1.	3	
199	HBIBS33	590280	209	234 - 305	2806		S0049: 1		
200	HBIBT13	608320	210	65 - 166	2807		S0049: 1, H0416: 1 and H0316: 1.		
201	HBIBZ20	688861	211	146 - 202	2808		S0049: 1	14q22.1	112262, 182600, 182870, 182870, 182870, 600225, 600225
202	HBICB80	637516	212	190 - 252	2809		S0358: 10, L0439: 5, H0009: 4, S0360: 3, S0408: 3, H0585: 2, H0657: 2, S0420: 2, S0442: 2, H0734: 2, H0318: 2, H0052: 2, H0373: 2, H0510: 2, H0266: 2, H0708: 2, H0445: 2, H0656: 1, H0341: 1, H0484: 1, H0662: 1, H0730: 1, H0722: 1, H0728: 1, H0392: 1, H0587: 1, H0559: 1, H0486: 1, S0010: 1, H0581: 1, S0049: 1, H0251: 1, H0545: 1, H0687: 1, H0644: 1, H0617: 1, S0364: 1, H0494: 1, H0633: 1, H0647: 1, S0144: 1, S0422: 1, H0529: 1, L0761: 1, L0773: 1, H0693: 1, H0593: 1, S0126: 1, H0690: 1, H0682: 1, S0406: 1, H0732: 1, L0742: 1, L0743: 1, L0745: 1, S0436: 1, L0594:	19p13	601011, 601011, 601011, 601011, 601768, 601843

203	HBJAC40	841235	213	329 - 370	2810		1, S0011: 1, H0542: 1 and H0352: 1. AR060: 6, AR316: 4, AR089: 2 L0439: 18, H0052: 14, L0438: 6, L0741: 5, H0556: 4, S0051: 4, S0036: 4, L0774: 4, H0622: 3, L0769: 3, H0619: 2, H0261: 2, H0318: 2, H0194: 2, L0471: 2, H0538: 2, L0749: 2, L0777: 2, L0757: 2, L0758: 2, L0593: 2, H0624: 1, H0265: 1, H0650: 1, H0657: 1, S0212: 1, S0282: 1, S0045: 1, S0222: 1, H0455: 1, H0559: 1, H0075: 1, H0253: 1, H0251: 1, H0544: 1, H0012: 1, S0050: 1, L0163: 1, H0083: 1, H0594: 1, H0615: 1, T0006: 1, H0708: 1, H0087: 1, H0268: 1, H0056: 1, S0038: 1, H0494: 1, S0450: 1, S0144: 1, L0770: 1, L4747: 1, L0639: 1, L0761: 1, L0775: 1, L0805: 1, L0635: 1, L0788: 1, S0428: 1, S0044: 1, L0612: 1, L0742: 1, L0748: 1, S0011: 1 and H0136: 1. H0318: 1 and S0027: 1. H0583: 1, H0318: 1 and H0309: 1.	16p13.3	141750, 141800, 141800, 141800, 141800, 141850, 141850, 141850, 141850, 141850, 156850, 186580, 191092, 600140, 600273, 601313, 601785
204	HBJAV56	603529	214	274 - 288	2811		H0318: 1 and S0027: 1.		
205	HBJAY14	626591	215	90 - 209	2812	Ser-31 to Lys-39.	H0583: 1, H0318: 1 and H0309: 1.		
206	HBJBQ69	560602	216	173 - 199	2813		AR089: 5, AR316: 5, AR060: 5 L0766: 5, H0318: 1 and L0649: 1.		
207	HBJBR40	581104	217	50 - 172	2814	Asp-16 to Glu-27.	H0318: 1		
208	HBJCH46	609859	218	146 - 334	2815	Lys-25 to Trp-32.	H0318: 1 and S0037: 1.		
209	HBJCR17	847332	219	55 - 165	2816		AR089: 17, AR316: 13, AR060: 9 L0803: 12, L0766: 10,	3p12-p11.1	164500, 176880, 232500, 600151, 600795

							H0457: 8, L0777: 8, L0759: 8, L0752: 7, L0754: 6, H0521: 5, L0439: 4, L0740: 4, H0170: 3, S0222: 3, H0587: 3, H0090: 3, L0770: 3, L0805: 3, L0659: 3, H0686: 2, L0415: 2, S0116: 2, H0402: 2, L0005: 2, H0486: 2, H0013: 2, H0036: 2, H0318: 2, H0581: 2, H0251: 2, H0373: 2, H0032: 2, H0038: 2, H0040: 2, H0634: 2, H0551: 2, L0520: 2, L0375: 2, L0809: 2, L0664: 2, L0665: 2, L0438: 2, H0547: 2, H0555: 2, L0779: 2, L0755: 2, L0731: 2, L0758: 2, L0596: 2, L0592: 2, L0604: 2, L0594: 2, S0040: 1, S0134: 1, H0650: 1, H0657: 1, L0811: 1, H0483: 1, H0638: 1, S0354: 1, S0358: 1, S0360: 1, H0329: 1, S0045: 1, S0046: 1, L0717: 1, H0351: 1, H0497: 1, H0574: 1, H0632: 1, L0586: 1, L0021: 1, S0474: 1, T0001: 1, H0546: 1, H0046: 1, H0569: 1, H0123: 1, S0051: 1, H0290: 1, S0003: 1, S0214: 1, H0688: 1, H0428: 1, H0039: 1, H0622: 1, H0031: 1, H0553: 1, H0124: 1, H0068: 1, H0135: 1, H0591: 1, H0616: 1, H0488: 1, H0487: 1, H0412: 1, S0440: 1, H0130: 1, H0652: 1, L0598: 1, L0369: 1, L0638: 1, L0646: 1, L0521: 1, L0662: 1, L0388: 1, L0804: 1, L0775: 1, L0655: 1, L0517: 1, L0791: 1, L0793: 1, L0666: 1, L0663: 1, H0520: 1, H0519: 1, S0126: 1, H0690: 1, H0659: 1, H0660: 1, H0672: 1, H0710: 1, S0152: 1, H0696: 1,
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Parameter	Value	Unit
Temperature	25.0	°C
Pressure	1.0	atm
Flow rate	1.0	L/min
Concentration	0.1	mol/L
pH	7.0	
Wavelength	254	nm
Scan rate	1.0	nm/min
Integration time	1.0	s
Resolution	0.5	nm
Slit width	1.0	mm
Detector	Photodiode array	
Software	ChemStation	
Column	C18	
Mobile phase	Water/Acetonitrile	
Gradient	0-100% ACN in 10 min	
Flow rate	1.0	mL/min
Injection volume	10	μL
Sample concentration	1.0	mg/mL
Sample volume	10	μL
Sample matrix	Water	
Sample storage	-20	°C
Sample stability	24	h
Sample recovery	100	%
Sample purity	100	%
Sample identification	Mass spectrometry	
Sample fragmentation	MS/MS	
Sample ionization	ESI	
Sample ionization voltage	3.0	kV
Sample ionization current	1.0	μA
Sample ionization temperature	150	°C
Sample ionization pressure	1.0	atm
Sample ionization flow rate	1.0	L/min
Sample ionization concentration	0.1	mol/L
Sample ionization pH	7.0	
Sample ionization wavelength	254	nm
Sample ionization scan rate	1.0	nm/min
Sample ionization integration time	1.0	s
Sample ionization resolution	0.5	nm
Sample ionization slit width	1.0	mm
Sample ionization detector	Photodiode array	
Sample ionization software	ChemStation	
Sample ionization column	C18	
Sample ionization mobile phase	Water/Acetonitrile	
Sample ionization gradient	0-100% ACN in 10 min	
Sample ionization flow rate	1.0	mL/min
Sample ionization injection volume	10	μL
Sample ionization sample concentration	1.0	mg/mL
Sample ionization sample volume	10	μL
Sample ionization sample matrix	Water	
Sample ionization sample storage	-20	°C
Sample ionization sample stability	24	h
Sample ionization sample recovery	100	%
Sample ionization sample purity	100	%
Sample ionization sample identification	Mass spectrometry	
Sample ionization sample fragmentation	MS/MS	
Sample ionization sample ionization	ESI	
Sample ionization sample ionization voltage	3.0	kV
Sample ionization sample ionization current	1.0	μA
Sample ionization sample ionization temperature	150	°C
Sample ionization sample ionization pressure	1.0	atm
Sample ionization sample ionization flow rate	1.0	L/min
Sample ionization sample ionization concentration	0.1	mol/L
Sample ionization sample ionization pH	7.0	
Sample ionization sample ionization wavelength	254	nm
Sample ionization sample ionization scan rate	1.0	nm/min
Sample ionization sample ionization integration time	1.0	s
Sample ionization sample ionization resolution	0.5	nm
Sample ionization sample ionization slit width	1.0	mm
Sample ionization sample ionization detector	Photodiode array	
Sample ionization sample ionization software	ChemStation	
Sample ionization sample ionization column	C18	
Sample ionization sample ionization mobile phase	Water/Acetonitrile	
Sample ionization sample ionization gradient	0-100% ACN in 10 min	
Sample ionization sample ionization flow rate	1.0	mL/min
Sample ionization sample ionization injection volume	10	μL
Sample ionization sample ionization sample concentration	1.0	mg/mL
Sample ionization sample ionization sample volume	10	μL
Sample ionization sample ionization sample matrix	Water	
Sample ionization sample ionization sample storage	-20	°C
Sample ionization sample ionization sample stability	24	h
Sample ionization sample ionization sample recovery	100	%
Sample ionization sample ionization sample purity	100	%
Sample ionization sample ionization sample identification	Mass spectrometry	
Sample ionization sample ionization sample fragmentation	MS/MS	
Sample ionization sample ionization sample ionization	ESI	
Sample ionization sample ionization sample ionization voltage	3.0	kV
Sample ionization sample ionization sample ionization current	1.0	μA
Sample ionization sample ionization sample ionization temperature	150	°C
Sample ionization sample ionization sample ionization pressure	1.0	atm
Sample ionization sample ionization sample ionization flow rate	1.0	L/min
Sample ionization sample ionization sample ionization concentration	0.1	mol/L
Sample ionization sample ionization sample ionization pH	7.0	
Sample ionization sample ionization sample ionization wavelength	254	nm
Sample ionization sample ionization sample ionization scan rate	1.0	nm/min
Sample ionization sample ionization sample ionization integration time	1.0	s
Sample ionization sample ionization sample ionization resolution	0.5	nm
Sample ionization sample ionization sample ionization slit width	1.0	mm
Sample ionization sample ionization sample ionization detector	Photodiode array	
Sample ionization sample ionization sample ionization software	ChemStation	
Sample ionization sample ionization sample ionization column	C18	
Sample ionization sample ionization sample ionization mobile phase	Water/Acetonitrile	
Sample ionization sample ionization sample ionization gradient	0-100% ACN in 10 min	
Sample ionization sample ionization sample ionization flow rate	1.0	mL/min
Sample ionization sample ionization sample ionization injection volume	10	μL
Sample ionization sample ionization sample ionization sample concentration	1.0	mg/mL
Sample ionization sample ionization sample ionization sample volume	10	μL
Sample ionization sample ionization sample ionization sample matrix	Water	
Sample ionization sample ionization sample ionization sample storage	-20	°C
Sample ionization sample ionization sample ionization sample stability	24	h
Sample ionization sample ionization sample ionization sample recovery	100	%
Sample ionization sample ionization sample ionization sample purity	100	%
Sample ionization sample ionization sample ionization sample identification	Mass spectrometry	
Sample ionization sample ionization sample ionization sample fragmentation	MS/MS	
Sample ionization sample ionization sample ionization sample ionization	ESI	
Sample ionization sample ionization sample ionization sample ionization voltage	3.0	kV
Sample ionization sample ionization sample ionization sample ionization current	1	

210	HBJCS26	821682	220	369 - 470	2817	<p>S0044: 1, S0404: 1, S0406: 1, H0436: 1, S0028: 1, L0743: 1, L0747: 1, L0750: 1, L0786: 1, H0445: 1, H0136: 1, S0196: 1 and H0423: 1.</p> <p>AR225: 24, AR296: 22, AR223: 18, AR221: 16, AR224: 15, AR217: 14, AR171: 14, AR168: 12, AR291: 10, AR172: 10, AR215: 9, AR169: 9, AR222: 9, AR216: 9, AR297: 8, AR264: 8, AR214: 8, AR311: 8, AR312: 8, AR252: 7, AR289: 7, AR213: 7, AR170: 7, AR173: 7, AR191: 7, AR309: 6, AR308: 6, AR189: 6, AR313: 6, AR096: 6, AR161: 6, AR162: 6, AR188: 6, AR163: 6, AR263: 6, AR254: 6, AR165: 6, AR295: 6, AR274: 6, AR212: 6, AR238: 6, AR166: 6, AR290: 6, AR164: 6, AR250: 6, AR287: 5, AR196: 5, AR272: 5, AR293: 5, AR240: 5, AR285: 5, AR190: 5, AR174: 5, AR175: 5, AR316: 5, AR288: 5, AR199: 5, AR253: 5, AR229: 4, AR286: 4, AR193: 4, AR053: 4, AR219: 4, AR089: 4, AR256: 4, AR294: 4, AR299: 4, AR237: 4, AR192: 4, AR181: 4,</p>	5		
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[illegible]

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211	HBICW24	805962	221	323 - 403	2818	1, S0212: 1, S0418: 1, S0376: 1, S0360: 1, T0008: 1, H0637: 1, H0580: 1, S0046: 1, H0619: 1, S6026: 1, S0222: 1, H0485: 1, H0069: 1, L0021: 1, H0318: 1, H0581: 1, H0052: 1, T0110: 1, H0150: 1, L0471: 1, T0010: 1, H0356: 1, H0266: 1, H0179: 1, H0271: 1, S0312: 1, H0615: 1, H0688: 1, H0428: 1, H0039: 1, T0006: 1, H0598: 1, H0163: 1, H0616: 1, T0067: 1, H0641: 1, H0646: 1, S0426: 1, L0763: 1, L0769: 1, L0637: 1, L0521: 1, L0767: 1, L0803: 1, L0774: 1, L0653: 1, L0655: 1, L0607: 1, L0634: 1, L0659: 1, L0783: 1, H0144: 1, H0701: 1, H0519: 1, H0593: 1, H0658: 1, H0660: 1, H0666: 1, S0328: 1, H0539: 1, S0378: 1, H0696: 1, S0044: 1, S0028: 1, L0745: 1, L0750: 1, H0445: 1, L0589: 1, L0593: 1, S0011: 1, H0667: 1, S0276: 1, H0542: 1, H0422: 1, S0456: 1 and H0506: 1. H0009: 69, H0144: 63, S0007: 60, H0265: 59, H0556: 56, H0013: 55, H0178: 55, L0748: 55, T0010: 48, H0052: 40, S0010: 38, H0100: 38, L0595: 35, H0124: 32, S0027: 30, H0266: 29, H0341: 28, H0521: 27, L0593: 27, H0031: 26, H0040: 23, L0588: 23, L0591: 23, T0049: 22, H0351: 22, H0083: 22, S0036: 22, H0090: 22, H0318: 20, S0038: 18, H0024: 17, L0439: 17, H0295: 16, S0046: 16, S0049:	
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[illegible]

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212	HBJDC57	603516	222	173 - 202	2819			L0731: 2, H0635: 1, H0318: 1, H0581: 1, H0328: 1, L0766: 1, L0783: 1, L0809: 1, L0666: 1, L0665: 1, S0052: 1, L0439: 1, L0740: 1, L0747: 1, L0780: 1, L0752: 1, L0758: 1, L0362: 1, L0366: 1 and S0424: 1.	22					
213	HBJDR18	604907	223	265 - 318	2820			H0318: 1 and L0779: 1.						
214	HBJDR83	600395	224	141 - 218	2821			H0318: 1						
215	HBJEE51	737793	225	56 - 112	2822			H0318: 1						
216	HBJEL21	866158	226	48 - 185	2823	Ser-18 to Asn-23, Leu-34 to Ile-39.		S0380: 5, H0624: 4, H0547: 4, H0305: 3, L0740: 3, L0754: 3, L0779: 3, H0171: 2, H0657: 2, S0376: 2, S0360: 2, S0222:	3q21		106165, 117700, 117700, 150210, 169600, 180380, 180380, 180380,			

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217	HBJFH84	836997	227	1663 - 1686	2824		AR089: 10, AR316: 9, AR060: 8 L0750: 8, H0318: 6, L0764: 6, S0002: 5, L0771: 5, L0665: 5, L0438: 5, L0747: 5, S0442: 4, H0046: 4, L0655: 4, L0809: 4, L0666: 4, L0740: 4, S0356: 3, S0444: 3, H0486: 3, L0646: 3, L0794: 3, L0766: 3, S0360: 2, H0036: 2, S0426: 2, L0372: 2, L0773: 2, L0776: 2, L0659: 2, L0663: 2, H0519: 2, H0555: 2, L0777: 2, S0436: 2, L0596: 2, L0591: 2, L0362: 2, H0542: 2, H0506: 2, S0212: 1, S0045: 1, H0575: 1, H0590: 1, S0010: 1, S0346: 1, H0705: 1, H0581: 1, H0052: 1, T0110: 1, H0597: 1, H0239: 1, H0622: 1, H0644: 1, H0674: 1, H0163: 1, H0591: 1, H0038: 1, H0087: 1, H0100:	4	

218	HBJFJ14	845228	228	264 - 308	2825		<p>1, S0448: 1, S0440: 1, S0142: 1, H0529: 1, L0763: 1, L0804: 1, L0775: 1, L0651: 1, L0806: 1, L0805: 1, L0783: 1, L0790: 1, L0791: 1, L0664: 1, H0701: 1, H0593: 1, H0670: 1, H0539: 1, S0406: 1, S3012: 1, S0028: 1, L0439: 1, L0751: 1, L0755: 1, H0445: 1, S0434: 1, H0423: 1 and S0424: 1.</p> <p>H0013: 23, L0747: 20, H0144: 17, L0731: 17, L0439: 12, L0662: 11, L0769: 10, T0010: 8, L0748: 8, S0001: 7, S0360: 6, S0007: 6, L0776: 6, L0659: 6, L0758: 6, L0759: 6, L0594: 6, H0009: 5, L0754: 5, L0589: 5, L0592: 5, H0706: 4, S0010: 4, L0351: 4, L0638: 4, L0764: 4, L0806: 4, L0805: 4, S0126: 4, L0745: 4, L0005: 3, H0244: 3, L0471: 3, H0428: 3, H0622: 3, H0696: 3, L0750: 3, L0608: 3, S0046: 2, H0645: 2, H0351: 2, S0005: 2, T0082: 2, H0004: 2, H0046: 2, H0178: 2, S0250: 2, H0038: 2, H0100: 2, S0440: 2, S0002: 2, L0770: 2, L0637: 2, L0771: 2, L0768: 2, L0649: 2, L0809: 2, S0148: 2, H0672: 2, S0330: 2, S0027: 2, S0028: 2, L0740: 2, L0755: 2, L0604: 2, L0366: 2, S0040: 1, S6024: 1, H0294: 1, S0282: 1, H0662: 1, H0638: 1, S0418: 1, S0420: 1, S0045: 1, H0411: 1, S0278: 1, S6014: 1, S0220: 1, H0441: 1, H0455: 1, H0587: 1, H0486: 1, T0060: 1, H0156: 1, L0021: 1, S0346: 1, H0318: 1,</p>		5q32	109690, 109690, 131400, 138491, 138491, 138491, 154500, 180071, 181460, 222600, 222600, 222600, 272750, 600807, 601596, 602089
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219	HBJFI26	1306969	229	180 - 359	2826	Gly-15 to Asp-25.	<p>S0474: 1, L0109: 1, H0052: 1, H0251: 1, H0546: 1, H0123: 1, H0050: 1, H0014: 1, S0388: 1, H0266: 1, H0687: 1, S0003: 1, S0022: 1, H0032: 1, H0383: 1, L0455: 1, H0124: 1, S0366: 1, S0036: 1, H0135: 1, H0591: 1, H0616: 1, H0551: 1, H0264: 1, H0268: 1, H0412: 1, H0623: 1, S0112: 1, H0649: 1, H0652: 1, S0144: 1, S0344: 1, L0796: 1, L0639: 1, L0772: 1, L0372: 1, L0644: 1, L0773: 1, L0521: 1, L0522: 1, L0774: 1, L0775: 1, L0606: 1, L0807: 1, L0656: 1, L0518: 1, L0783: 1, L0530: 1, L0789: 1, L0666: 1, L0664: 1, H0691: 1, H0520: 1, H0547: 1, H0365: 1, H0682: 1, H0683: 1, H0658: 1, H0648: 1, S0152: 1, S0044: 1, S0406: 1, L0612: 1, L0744: 1, L0756: 1, S0031: 1, S0011: 1, S0026: 1, S0462: 1, H0506: 1 and H0008: 1.</p>		
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AR260: 6, AR234: 5,	
AR222: 5, AR230: 5,	
AR215: 4	
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220	HBJF183	873844 566478	2598 230	851 - 1030 246 - 350	5195 2827	Gly-15 to Asp-25.	L0777: 4, H0318: 2, L0439: 2, L0758: 2, H0170: 1, L0768: 1, L0549: 1, L0665: 1, L0438: 1, L0611: 1, L0740: 1, L0747: 1, L0756: 1 and L0593: 1.	9q33.1-q33.3	268900
221	HBJF183	852046	231	246 - 350	2828		L0777: 4, H0318: 2, L0439: 2, L0758: 2, H0170: 1, L0768: 1, L0549: 1, L0665: 1, L0438: 1, L0611: 1, L0740: 1, L0747: 1, L0756: 1 and L0593: 1.	9q33.1-q33.3	268900
222	HBJFP47	603438	232	423 - 539	2829		H0369: 1 and H0318: 1.		
223	HBJFR77	825789	233	354 - 449	2830		L0748: 4, L0596: 2, S0442: 1, H0318: 1, H0178: 1, H0674: 1, S0438: 1, H0647: 1, L0800: 1, L0521: 1, L0766: 1, L0528: 1, H0684: 1, S0406: 1, H0555: 1 and L0752: 1.		
224	HBJFU30	637517	234	14 - 247	2831	Lys-65 to Thr-71.	AR060: 17, AR316: 13, AR089: 8 L0803: 2, L0666: 2, H0539: 2, H0402: 1, H0450: 1, H0370: 1, S0182: 1, H0318: 1, L0351: 1, L0521: 1, L0766: 1, L0804: 1, L0651: 1, L0526: 1, L0789: 1, H0672: 1, S0206: 1, L0747: 1, L0756: 1, L0779: 1, L0777: 1, L0731: 1, L0758: 1, L0759: 1 and L0592: 1.	11q22	105580, 133780, 602574, 602574
225	HBJFX41	603437	235	181 - 222	2832	Arg-8 to Asn-13.	AR089: 28, AR316: 23, AR060: 17 H0318: 1		
226	HBJHO83	610259	236	189 - 392	2833		H0318: 1, H0150: 1 and L0385: 1.		
227	HBJHS92	663625	237	121 - 177	2834		S0222: 1 and H0318: 1.		
228	HBJHT01	587262	238	200 - 265	2835		AR060: 4, AR316: 4, AR089: 4 L0667: 2, S0114: 1, H0351: 1, H0318: 1, H0615: 1 and		

229	HBJHT01	580026	239	193 - 336	2836			L0764: 1. AR060: 4, AR316: 4, AR089: 4 L0667: 2, S0114: 1, H0351: 1, H0318: 1, H0615: 1 and L0764: 1.		
230	HBJHW06	724943	240	443 - 550	2837			H0318: 1 and H0038: 1.		
231	HBJIR14	793391	241	1800 - 1859	2838			AR316: 9, AR089: 9, AR060: 9 H0556: 12, L0439: 12, H0266: 11, L0755: 9, H0264: 8, L0766: 8, H0521: 8, L0731: 8, H0634: 7, S0028: 7, L0752: 7, H0012: 6, L0748: 6, L0666: 5, L0754: 5, L0758: 5, S0360: 4, H0623: 4, L0665: 4, L0740: 4, L0750: 4, L0756: 4, L0591: 4, H0265: 3, H0638: 3, H0620: 3, H0135: 3, H0163: 3, H0040: 3, H0551: 3, H0100: 3, S0002: 3, L0769: 3, S0052: 3, H0144: 3, S0126: 3, S3014: 3, H0650: 2, H0305: 2, S0278: 2, H0333: 2, H0632: 2, H0485: 2, T0040: 2, H0013: 2, H0069: 2, H0635: 2, H0575: 2, H0318: 2, H0009: 2, H0123: 2, S0022: 2, H0622: 2, H0553: 2, H0617: 2, H0068: 2, H0038: 2, H0616: 2, H0268: 2, H0561: 2, S0370: 2, H0130: 2, S0142: 2, L0770: 2, L0771: 2, L0662: 2, L0657: 2, L0664: 2, H0518: 2, S0152: 2, H0522: 2, H0555: 2, H0576: 2, L0749: 2, L0605: 2, L0599: 2, H0624: 1, H0140: 1, H0685: 1, H0717: 1, H0295: 1, H0662: 1, H0459: 1, S0418: 1, S0420: 1, S0358: 1, S0376: 1, S0408: 1, S0476: 1, H0645: 1, H0549: 1, H0550:		

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232	HBJJA26	743181	242	236 - 325	2839	S0132: 1 and H0318: 1. H0318: 1						
233	HBIJX02	612069	243	228 - 338	2840	Arg-17 to Glu-31.						
234	HBILH78	839735	244	284 - 340	2841	AR060: 6, AR316: 5, AR089: 3 H0318: 1 and H0445: 1.						
235	HBIND04	837242	245	309 - 1355	2842	Arg-23 to Gly-29, Ser-52 to Glu-74,	AR089: 19, AR316: 15, AR060: 10					

					Ser-76 to Lys-82, Glu-88 to Pro-94, Pro-111 to Gly-127, Glu-130 to Gly-136, Ile-140 to Gly-150, Trp-176 to Asn-183, Lys-201 to Gly-206, Leu-225 to Gly-230, Leu-237 to Leu-251, Val-267 to Asp-274.				H0046: 16, L0803: 14, L0439: 5, L0794: 4, L0804: 4, L0809: 3, L0777: 3, L0759: 3, S0358: 2, H0318: 2, H0553: 2, H0169: 2, L0770: 2, L0771: 2, L0666: 2, L0664: 2, L0754: 2, L0750: 2, L0752: 2, L0731: 2, S0436: 2, S0134: 1, H0656: 1, S0116: 1, H0669: 1, S0418: 1, S0442: 1, S0444: 1, S0046: 1, H0393: 1, S0300: 1, S0222: 1, H0441: 1, H0575: 1, T0082: 1, S0346: 1, L0105: 1, H0052: 1, L0471: 1, H0039: 1, H0628: 1, H0032: 1, H0674: 1, H0598: 1, H0268: 1, H0560: 1, H0509: 1, L0769: 1, L0773: 1, L0662: 1, L0363: 1, L0774: 1, L0375: 1, L0651: 1, L0654: 1, L0655: 1, L0782: 1, L0519: 1, L0544: 1, L0791: 1, L0663: 1, L0665: 1, L0438: 1, H0547: 1, H0593: 1, H0435: 1, S0378: 1, H0696: 1, L0758: 1, L0608: 1, H0653: 1 and S0242: 1.		
236	HBJND57	612785	246	20 - 124	2843	Glu-29 to Asn-34.			H0318: 1, H0264: 1 and S0426: 1.		
237	HBKDF66	827276	247	222 - 311	2844				S0366: 1, L0769: 1 and L0790: 1.		
238	HBKEA94	827277	248	56 - 232	2845	His-41 to Gly-46.			AR089: 13, AR316: 11, AR060: 8 H0733: 6, S0364: 6, S0366: 6, H0729: 4, L0623: 3, H0708: 3, L0777: 3, H0728: 2, H0706: 2, H0644: 2, L0794: 2, L0750: 2, S0116: 1, S0212: 1, H0586: 1, L0622: 1, H0122: 1, H0581: 1, S0049: 1, H0018: 1, L0644: 1, L0789: 1, H0732: 1 and L0779: 1.		

239	HBKEE60	793788	249	47 - 295	2846			S0366: 1 and H0598: 1.				
240	HBKEI41	827278	250	441 - 812	2847		Thr-115 to Ala-123.	AR196: 7, AR235: 6, AR188: 6, AR309: 6, AR191: 5, AR285: 5, AR053: 5, AR311: 5, AR313: 5, AR312: 5, AR180: 5, AR190: 5, AR236: 5, AR189: 5, AR193: 5, AR183: 5, AR089: 5, AR219: 4, AR161: 4, AR162: 4, AR213: 4, AR263: 4, AR096: 4, AR253: 4, AR164: 4, AR163: 4, AR165: 4, AR178: 4, AR290: 4, AR214: 4, AR269: 4, AR172: 4, AR175: 4, AR205: 4, AR282: 4, AR224: 4, AR212: 4, AR166: 4, AR264: 4, AR308: 4, AR275: 4, AR270: 4, AR297: 4, AR039: 4, AR168: 4, AR261: 4, AR287: 3, AR268: 3, AR291: 3, AR174: 3, AR257: 3, AR262: 3, AR226: 3, AR177: 3, AR295: 3, AR288: 3, AR271: 3, AR299: 3, AR199: 3, AR250: 3, AR060: 3, AR182: 3, AR258: 3, AR245: 3, AR201: 3, AR316: 3, AR293: 3, AR218: 3, AR252: 3, AR195: 3, AR203: 3, AR300: 3, AR185: 3, AR294: 3, AR260: 3, AR274: 3, AR179: 3, AR181: 3,				

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241	HBM/BD51	842176	251	413 - 631	2848			H0421: 1, L0118: 1, H0271: 1, S0448: 1, L0766: 1, S0216: 1, H0539: 1 and L0748: 1.				
242	HBM/BD73	839564	252	4310 - 4351	2849			AR089: 28, AR316: 23, AR060: 18 L0439: 20, L0748: 16, L0438: 14, L0740: 12, L0731: 10, L0659: 9, L0803: 7, L0758: 7, L0759: 6, L0794: 5, H0050: 4, H0242: 4, L0471: 4, L0756: 4, L0779: 4, L0777: 4, L0757: 4, H0013: 3, H0599: 3, H0052: 3, T0010: 3, H0038: 3, L0770: 3, L0771: 3, L0775: 3, L0655: 3, L0809: 3, L0663: 3.				

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243	HBMBE33	493916	253	45 - 158	2850				H0421: 1 and L0752: 1.			
244	HBMBM17	637518	254	31 - 144	2851				H0421: 1, H0522: 1 and S0146: 1.			
245	HBMCL59	608668	255	69 - 164	2852				H0421: 1, L0664: 1 and L0779: 1.			
246	HBMCM96	821318	256	100 - 162	2853				S0010: 1, H0421: 1 and S0002: 1.			
247	HBMCMQ74	856461	257	1815 - 1877	2854				AR060: 4, AR316: 4, AR089: 4 L0731: 17, L0766: 15, H0521: 15, H0457: 13, L0740: 9, H0486: 8, S0358: 6, S0474: 6, L0747: 6, H0423: 6, H0581: 5, L0754: 5, H0638: 4, L0779: 4, H0445: 4, S0134: 3, S0045: 3, S0374: 3, L0757: 3, L0485: 3, H0422: 3, S0040: 2, H0583: 2, S0360: 2, H0586: 2, H0574: 2, H0575: 2, H0050: 2, H0014: 2, H0328: 2, H0316: 2, S0036: 2, H0090: 2, S0422: 2, L0369: 2, L0764: 2, L0662: 2, L0792: 2, L0663: 2, L0665: 2, L0565: 2, H0519: 2, S0328: 2, H0518: 2, L0750: 2, L0758: 2, H0668: 2, H0624: 1, H0170: 1, H0171: 1, T0002: 1, S0114: 1, H0650: 1, H0657: 1, H0656: 1, H0341: 1, S0282: 1, H0669: 1, H0458: 1, H0459: 1, S0356: 1, S0132: 1, H0411: 1, S0222: 1, H0600: 1, H0592: 1, H0587: 1, T0039: 1.	3q25		106165, 222900, 276902

248	HBMQC74	864382	258	1815 - 1877	2855			1, H0250: 1, S0280: 1, H0122: 1, H0004: 1, L0105: 1, H0318: 1, H0421: 1, H0196: 1, H0251: 1, H0046: 1, H0439: 1, L0471: 1, H0057: 1, H0015: 1, H0373: 1, H0083: 1, H0354: 1, H0266: 1, S0250: 1, S0003: 1, S0214: 1, H0252: 1, H0615: 1, L0483: 1, H0628: 1, H0598: 1, H0163: 1, H0591: 1, H0062: 1, H0551: 1, T0041: 1, H0560: 1, S0466: 1, H0130: 1, H0641: 1, H0646: 1, H0649: 1, S0210: 1, S0002: 1, H0695: 1, L0646: 1, L0648: 1, L0794: 1, L0803: 1, L0774: 1, L0784: 1, L0805: 1, L0655: 1, L0607: 1, L0527: 1, L0657: 1, L0659: 1, L0783: 1, L0809: 1, L0666: 1, L0664: 1, S0052: 1, S0428: 1, H0144: 1, H0365: 1, H0435: 1, H0651: 1, S0330: 1, S0380: 1, S0350: 1, H0436: 1, S0028: 1, L0748: 1, L0749: 1, L0756: 1, L0777: 1, S0260: 1, L0590: 1, L0591: 1, H0667: 1 and L0697: 1.	3q25	106165, 222900, 276902
								AR060: 4, AR316: 4, AR089: 4 L0731: 17, L0766: 15, H0521: 15, H0457: 13, L0740: 9, H0486: 8, S0358: 6, S0474: 6, L0747: 6, H0423: 6, H0581: 5, L0754: 5, H0638: 4, L0779: 4, H0445: 4, S0134: 3, S0045: 3, S0374: 3, L0757: 3, L0485: 3, H0422: 3, S0040: 2, H0583: 2, S0360: 2, H0586: 2, H0574: 2, H0575: 2, H0050: 2, H0014: 2, H0328: 2, H0316: 2, S0036: 2, H0090: 2, S0422: 2, L0369: 2.		

249	HBMCT40	824053	259	184 - 432	2856	Glu-42 to Thr-47, Gln-49 to His-57.	2, L0764: 2, L0662: 2, L0792: 2, L0663: 2, L0665: 2, L0565: 2, H0519: 2, S0328: 2, H0518: 2, L0750: 2, L0758: 2, H0668: 2, H0624: 1, H0170: 1, H0171: 1, T0002: 1, S0114: 1, H0650: 1, H0657: 1, H0656: 1, H0341: 1, S0282: 1, H0669: 1, H0458: 1, H0459: 1, S0356: 1, S0132: 1, H0411: 1, S0222: 1, H0600: 1, H0592: 1, H0587: 1, T0039: 1, H0250: 1, S0280: 1, H0122: 1, H0004: 1, L0105: 1, H0318: 1, H0421: 1, H0196: 1, H0251: 1, H0046: 1, H0439: 1, L0471: 1, H0057: 1, H0015: 1, H0373: 1, H0083: 1, H0354: 1, H0266: 1, S0250: 1, S0003: 1, S0214: 1, H0252: 1, H0615: 1, L0483: 1, H0628: 1, H0598: 1, H0163: 1, H0591: 1, H0062: 1, H0551: 1, T0041: 1, H0560: 1, S0466: 1, H0130: 1, H0641: 1, H0646: 1, H0649: 1, S0210: 1, S0002: 1, H0695: 1, L0646: 1, L0648: 1, L0794: 1, L0803: 1, L0774: 1, L0784: 1, L0805: 1, L0655: 1, L0607: 1, L0527: 1, L0657: 1, L0659: 1, L0783: 1, L0809: 1, L0666: 1, L0664: 1, S0052: 1, S0428: 1, H0144: 1, H0365: 1, H0435: 1, H0651: 1, S0330: 1, S0380: 1, S0350: 1, H0436: 1, S0028: 1, L0748: 1, L0749: 1, L0756: 1, L0777: 1, S0260: 1, L0590: 1, L0591: 1, H0667: 1 and L0697: 1.	Ipter-p31.2	
							AR089: 15, AR316: 13, AR060: 12 L0748: 16, L0758: 10.		

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250	HBMDM08	837927	260	505 - 975	2857	Asp-85 to Arg-92, Ala-107 to Glu-116.	S3012: 1, S0028: 1, L0744: 1, L0779: 1, L0752: 1, S0394: 1, L0588: 1, L0608: 1, L0601: 1, H0667: 1, S0192: 1, S0276: 1 and S0196: 1. H0421: 1	3p25.3-3p24.1	193300, 193300, 227646, 601154
251	HBMSN62	787680	261	193 - 288	2858		L0754: 4, L0766: 3, L0803: 3, H0648: 3, L0758: 3, L0800: 2, L0775: 2, L0666: 2, L0747: 2, L0779: 2, S0116: 1, S0358: 1, H0574: 1, L0021: 1, L0022: 1, S0003: 1, H0615: 1, L0351: 1, L0667: 1, L0764: 1, L0768: 1, L0806: 1, L0379: 1, L0659: 1, L0647: 1, L0791: 1, L0792: 1, L0663: 1, L0664: 1, L0665: 1, S0330: 1, L0748: 1, L0439: 1, L0777: 1 and L0599: 1.	4	
252	HBMSO30	843389	262	172 - 225	2859		S0116: 1		
253	HBMTM50	609988	263	44 - 58	2860		L0439: 12, L0731: 11, L0754: 10, L0438: 8, L0750: 8, L0766: 7, L0752: 6, L0758: 6, L0759: 5, S0212: 4, H0266: 4, L0774: 4, L0748: 4, L0751: 4, L0747: 4, H0556: 3, S0046: 3, L0775: 3, L0659: 3, L0779: 3, L0588: 3, S0420: 2, S0360: 2, H0333: 2, H0052: 2, T0010: 2, H0083: 2, H0428: 2, T0041: 2, L0769: 2, L0772: 2, L0646: 2, L0773: 2, L0649: 2, L0806: 2, L0509: 2, L0655: 2, L0606: 2, H0659: 2, H0521: 2, L0740: 2, L0756: 2, L0755: 2, L0757: 2, L0581: 2, L0608: 2, H0170: 1, S0040: 1, S0114: 1, T0049: 1, L0002: 1, H0657: 1, S0116: 1, H0663: 1, S0418: 1, S0354: 1, S0358: 1, S0222: 1, H0392:		

254	HBMUD59	701970	264	270 - 650	2861	Arg-31 to Cys-38, Thr-69 to Thr-76, Pro-94 to Glu-100, Ile-114 to Glu-120.	1, H0586: 1, H0427: 1, H0156: 1, L0021: 1, H0004: 1, S0010: 1, H0581: 1, L2250: 1, H0545: 1, L0471: 1, H0012: 1, S0050: 1, L0163: 1, H0687: 1, S0338: 1, H0039: 1, T0023: 1, T0006: 1, H0644: 1, H0040: 1, H0616: 1, H0494: 1, S0294: 1, H0646: 1, S0344: 1, H0538: 1, S0210: 1, L0520: 1, L0770: 1, L0642: 1, L0645: 1, L0764: 1, L0662: 1, L0375: 1, L0513: 1, L0782: 1, L0783: 1, L0647: 1, L0663: 1, H0520: 1, H0519: 1, H0593: 1, H0682: 1, H0539: 1, H0134: 1, S0027: 1, L0749: 1, L0777: 1, L0753: 1, S0260: 1, L0485: 1, H0668: 1, H0667: 1, S0276: 1 and S0424: 1.	16p13.3	141750, 141800, 141800, 141800, 141800, 141850, 141850, 141850, 141850, 141850, 156850, 186580, 191092, 600140, 600273, 601313, 601785
						AR202: 69, AR281: 63, AR194: 61, AR246: 54, AR205: 51, AR039: 49, AR206: 47, AR198: 45, AR192: 40, AR204: 40, AR315: 39, AR244: 37, AR243: 34, AR283: 32, AR053: 32, AR280: 31, AR265: 31, AR271: 31, AR314: 31, AR299: 30, AR089: 30, AR241: 30, AR213: 29, AR033: 29, AR282: 28, AR263: 28, AR277: 27, AR096: 26, AR310: 26, AR300: 26, AR275: 26, AR316: 26, AR055: 26, AR104: 25, AR274: 24, AR052: 23, AR232: 23, AR060: 23, AR251: 22, AR247: 22, AR295: 21, AR177: 20,			

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255	HBMUI10	566764	265	249 - 368	2862	Tyr-5 to Leu-10.	1, H0674: 1, H0551: 1, H0059: 1, T0041: 1, H0494: 1, L0763: 1, L0761: 1, L0646: 1, L0374: 1, L0644: 1, L0764: 1, L0771: 1, L0649: 1, L0659: 1, L0542: 1, L0783: 1, L0789: 1, L0790: 1, L0792: 1, L0666: 1, S0216: 1, L0352: 1, H0547: 1, H0670: 1, S0330: 1, S0406: 1, L0749: 1, L0755: 1, H0445: 1, S0436: 1, L0603: 1, H0542: 1 and H0506: 1.		
256	HBMUI48	580808	266	180 - 254	2863		H0619: 3, L0766: 3, L0665: 3, L0754: 3, L0777: 3, S0222: 2, L0770: 2, L0806: 2, L0663: 2, L0748: 2, L0779: 2, L0759: 2, H0170: 1, H0650: 1, S0116: 1, H0580: 1, S0226: 1, L0717: 1, H0587: 1, H0013: 1, H0069: 1, H0251: 1, L0163: 1, H0615: 1, H0673: 1, H0063: 1, H0413: 1, L0769: 1, L0796: 1, L0761: 1, L0764: 1, L0375: 1, L0653: 1, L0807: 1, L0809: 1, L0789: 1, S0216: 1, H0682: 1, H0683: 1, H0658: 1, S0330: 1, S0350: 1, H0694: 1, S0392: 1, L0742: 1, L0439: 1, L0740: 1, L0780: 1, S0276: 1 and H0422: 1. AR060: 7, AR316: 6, AR089: 4 L0748: 7, L0740: 4, L0439: 3, L0779: 3, L0731: 3, L0759: 3, L0589: 3, L0591: 3, H0556: 2, T0006: 2, H0264: 2, H0056: 2, L0770: 2, L0774: 2, L0775: 2, L0776: 2, L0438: 2, L0754: 2, L0747: 2, L0749: 2, L0599: 2, S0116: 1, H0486: 1, H0618: 1, T0110: 1, H0009: 1, H0252:		

257	HBMUR39	647594	267	135 - 206	2864			1, H0428: 1, H0169: 1, L0455: 1, T0042: 1, S0002: 1, L0638: 1, L0772: 1, L0771: 1, L0651: 1, L0663: 1, L0665: 1, H0547: 1, H0521: 1, S0027: 1 and L0757: 1.		
258	HBMVVF65	609348	268	179 - 295	2865			AR089: 18, AR316: 14, AR060: 11 S0116: 1 and L0748: 1.		
259	HBMVVF65	847789	269	382 - 498	2866			L0803: 2, L0526: 2, S0116: 1, S6028: 1, L0627: 1, L0777: 1, L0759: 1, L0608: 1, S0026: 1 and S0462: 1.		
260	HBMWVC39	523713	270	112 - 168	2867			L0803: 2, S0002: 2, S0126: 2, H0521: 2, H0265: 1, T0049: 1, S0116: 1, H0638: 1, S0360: 1, H0004: 1, H0030: 1, T0041: 1, S0344: 1, L0794: 1, L0766: 1, L0806: 1, L0805: 1, L0543: 1, L0749: 1, H0136: 1 and H0423: 1.		
261	HBMWJ92	701971	271	82 - 204	2868			L0587: 2, H0170: 1, S0116: 1, S0442: 1, H0431: 1, H0574: 1, H0318: 1 and H0615: 1.		
262	HBMWVS52	872553	272	19 - 126	2869			S0116: 1		
263	HBMXE34	834497	273	301 - 336	2870			AR089: 10, AR316: 10, AR060: 10 L0740: 4, H0616: 3, H0056: 3, L0803: 3, L0659: 3, L0666: 3, L0758: 3, L0005: 2, L0717: 2, H0032: 2, L0455: 2, L0598: 2, L0800: 2, L0771: 2, L0766: 2, L0663: 2, L0665: 2, L0438: 2, L0748: 2, L0759: 2, H0686: 1, H0583: 1, S0116: 1, H0638: 1	12	

264	HBMXG01	689522	274	261 - 335	2871				1, S0348: 1, S0354: 1, S0476: 1, S0222: 1, H0431: 1, L0021: 1, S0010: 1, H0318: 1, L0738: 1, H0545: 1, S0050: 1, S0051: 1, H0688: 1, H0428: 1, H0553: 1, H0124: 1, H0090: 1, H0591: 1, H0038: 1, H0488: 1, S0448: 1, S0440: 1, S0002: 1, L0770: 1, L0646: 1, L0764: 1, L0649: 1, L0804: 1, L0653: 1, L0776: 1, L0807: 1, L0542: 1, L0526: 1, L0518: 1, L0809: 1, S0374: 1, H0519: 1, H0435: 1, H0521: 1, H0696: 1, L0751: 1, L0747: 1, L0780: 1, S0260: 1, S0434: 1, L0595: 1, H0665: 1, S0242: 1, L0698: 1 and H0506: 1.		
265	HBMXG76	580812	275	71 - 151	2872				S0116: 1 AR060: 7, AR316: 5, AR089: 3 S0116: 1		
266	HBMXM05	842283	276	20 - 133	2873	Asn-28 to Asn-37.			L0748: 6, S0114: 1, S0116: 1, H0431: 1, H0313: 1, L0740: 1, L0749: 1, L0758: 1 and S0260: 1.		
267	HBMXW83	725335	277	16 - 135	2874				S0410: 9, L0803: 5, L0809: 4, L0756: 3, L0759: 3, H0171: 2, S0116: 2, H0586: 2, S0003: 2, L0769: 2, L0662: 2, L0805: 2, L0653: 2, H0520: 2, L0749: 2, L0779: 2, L0777: 2, L0752: 2, L0757: 2, S0026: 2, H0661: 1, H0664: 1, H0402: 1, H0675: 1, S0045: 1, H0632: 1, H0599: 1, H0510: 1, H0316: 1, H0591: 1, H0625: 1, S0464: 1, L0763: 1, L0638: 1, L0646: 1, L0800: 1, L0771: 1, L0521: 1, L0768: 1, L0766: 1, L0649: 1, L0389: 1, L0388: 1, L0804: 1, L0774: 1.	6p12	180297, 230450, 263200, 601690

268	HBNAE74	637524	278	203 - 208	2875			1, L0775: 1, L0806: 1, L0606: 1, L0659: 1, L0788: 1, L5286: 1, L0666: 1, L0663: 1, L0665: 1, S0374: 1, L0748: 1, L0731: 1, S0434: 1 and H0422: 1. AR060: 5, AR316: 4, AR089: 3 H0441: 3, L0806: 2, L0663: 2, L0750: 2, H0188: 1, H0688: 1, H0428: 1, L0483: 1, L0794: 1, S0028: 1, L0749: 1, L0777: 1 and L0758: 1.	lp36.11-p34.2	120550, 120570, 120575, 121800, 130500, 133200, 138140, 171760, 171760, 255800, 600975
269	HBNAE16	843727	279	2711 - 3157	2876	Gly-62 to Gly-69, Pro-96 to Asp-102.		H0271: 10, H0556: 7, L0731: 7, H0494: 5, L0766: 5, L0777: 5, H0622: 4, L0805: 4, L0741: 4, L0743: 4, L0744: 4, L0749: 4, H0619: 3, H0333: 3, H0179: 3, H0416: 3, S0440: 3, L0804: 3, H0519: 3, H0539: 3, H0521: 3, L0740: 3, L0758: 3, H0542: 3, H0543: 3, H0458: 2, L0717: 2, H0592: 2, H0618: 2, H0318: 2, T0041: 2, H0529: 2, L0769: 2, L0667: 2, L0643: 2, L0521: 2, L0794: 2, L0776: 2, L0659: 2, L0789: 2, H0520: 2, S0126: 2, S014: 2, L0742: 2, L0747: 2, L0755: 2, L0759: 2, L0591: 2, L0581: 2, H0624: 1, S0040: 1, S0342: 1, S0402: 1, S0114: 1, S0134: 1, H0656: 1, H0255: 1, H0661: 1, H0402: 1, H0638: 1, S0420: 1, S0354: 1, S0360: 1, S0132: 1, S6026: 1, H0549: 1, S0222: 1, S6014: 1, H0392: 1, H0455: 1, H0642: 1, H0331: 1, H0632: 1, T0040: 1, H0013: 1, H0599: 1, L0022: 1, H0581: 1, S0049: 1, H0052: 1, H0251: 1, H0204: 1, H0544: 1, H0046: 1.	16	

270	HBNAZ35	840687	280	519 - 542	2877			1, H0457: 1, L0157: 1, H0050: 1, H0014: 1, S0051: 1, H0099: 1, H0188: 1, H0288: 1, H0286: 1, H0428: 1, L0483: 1, H0031: 1, H0553: 1, H0181: 1, H0617: 1, S0366: 1, H0040: 1, H0616: 1, H0551: 1, H0623: 1, T0042: 1, L0475: 1, H0334: 1, H0560: 1, H0625: 1, H0509: 1, H0647: 1, H0646: 1, S0344: 1, H0538: 1, L0762: 1, L0763: 1, L0637: 1, L0372: 1, L0800: 1, L0626: 1, L0803: 1, L0774: 1, L0378: 1, L0655: 1, L0657: 1, L0809: 1, L0647: 1, L0664: 1, L0665: 1, S0052: 1, H0547: 1, H0690: 1, H0672: 1, H0709: 1, H0696: 1, H0187: 1, H0436: 1, H0478: 1, S0037: 1, S0028: 1, L0439: 1, L0779: 1, L0780: 1, L0752: 1, S0031: 1, S0434: 1, S0436: 1, L0595: 1, L0601: 1, S0011: 1, H0668: 1 and H0677: 1.		
271	HBODK40	852382	281	338 - 370	2878			AR060: 7, AR316: 5, AR089: 4 H0188: 2, L0367: 2, H0156: 1, L0779: 1 and L0593: 1. AR089: 5, AR316: 4, AR060: 3 L0748: 5, H0457: 3, L0764: 3, L0766: 3, L0749: 3, S0360: 2, H0658: 2, L0439: 2, H0624: 1, H0657: 1, H0656: 1, S0358: 1, H0208: 1, H0581: 1, H0052: 1, H0024: 1, H0617: 1, S0364: 1, T0041: 1, S0440: 1, S0344: 1, S0002: 1, L0667: 1, L0646: 1, L0771: 1, L0768: 1, L0794: 1, L0515: 1, L0809: 1, L0664: 1, L0665: 1, L0438: 1, S0330: 1.		

272	HBODV76	866420	282	303 - 329	2879			1, H0696: 1, S0406: 1, L0756: 1, L0779: 1, L0777: 1, L0758: 1, S0031: 1 and H0422: 1. L0604: 28, L0747: 16, S0364: 14, L0750: 12, L0485: 11, S0366: 10, H0708: 8, H0723: 8, H0171: 6, H0706: 6, H0144: 6, L0809: 5, L0777: 5, H0170: 4, L0520: 4, H0725: 4, H0624: 3, L0375: 3, L0471: 2, S0362: 2, H0616: 2, L0759: 2, L0623: 1, H0013: 1, H0041: 1, H0050: 1, H0373: 1, L0163: 1, S0294: 1, L0776: 1, L0783: 1, L0790: 1, L0791: 1 and L0749: 1.	2p14-ql4.3	203800	
273	HBPAD89	637525	283	74 - 121	2880			H0556: 14, L0439: 14, H0265: 12, L0747: 10, H0529: 9, H0144: 9, H0657: 8, H0333: 8, L0731: 8, L0770: 7, L0809: 7, H0547: 7, H0521: 7, L0748: 7, H0341: 6, L0776: 6, H0650: 5, S0410: 5, H0024: 5, H0135: 5, H0040: 5, H0494: 5, L0766: 5, L0657: 5, L0666: 5, S0152: 5, L0740: 5, L0779: 5, L0758: 5, H0542: 5, S0418: 4, S0444: 4, S0045: 4, H0318: 4, H0123: 4, S0022: 4, H0032: 4, H0124: 4, H0413: 4, L0764: 4, L0375: 4, L0659: 4, L0749: 4, L0752: 4, L0595: 4, H0543: 4, H0295: 3, S0420: 3, H0549: 3, H0013: 3, H0581: 3, H0052: 3, H0251: 3, L0471: 3, H0012: 3, H0594: 3, H0039: 3, H0622: 3, H0644: 3, H0551: 3, L0475: 3, L0369: 3, L0769: 3, L0521: 3, L0804: 3, L0774: 3, L0663: 3, S0126: 3, S0044: 3, S0406: 3, S0027: 3.			

Parameter	Value	Unit
Initial concentration	1.0	g/L
Initial pH	7.0	
Temperature	25	°C
Time	0-24	h
Agitation speed	150	rpm
Batch size	100	mL
Sampling interval	1	h
Reproducibility	± 0.5	%
Statistical analysis	ANOVA	
Significance level	0.05	
Software	SPSS 16.0	

[illegible]

								1, H0674: 1, L0455: 1, H0708: 1, H0068: 1, S0036: 1, H0163: 1, H0591: 1, H0087: 1, H0116: 1, H0477: 1, H0264: 1, H0272: 1, H0412: 1, L0564: 1, H0560: 1, S0440: 1, S0150: 1, H0538: 1, S0422: 1, S0002: 1, L0640: 1, L0763: 1, L0637: 1, L3904: 1, L0667: 1, L0772: 1, L0373: 1, L0641: 1, L0374: 1, L0768: 1, L0381: 1, L0803: 1, L0775: 1, L0805: 1, L0661: 1, L0526: 1, L0518: 1, L0782: 1, L0383: 1, L0382: 1, L0519: 1, L0544: 1, L0789: 1, L0791: 1, L0664: 1, H0698: 1, S0374: 1, H0723: 1, S0148: 1, H0519: 1, H0689: 1, H0658: 1, S0330: 1, L0602: 1, H0518: 1, H0522: 1, S0404: 1, S0392: 1, H0627: 1, L0742: 1, L0751: 1, L0756: 1, L0777: 1, L0592: 1, L0361: 1, L0366: 1, S0011: 1, H0668: 1, H0667: 1, S0424: 1, S0462: 1, H0008: 1 and H0352: 1.					
274	HBPAF39	850786	284	119 - 175	2881			AR089: 10, AR316: 8, AR060: 7 S0114: 2, S0030: 1, S0051: 1, S0053: 1 and L0599: 1.					
275	HBQAC45	723505	285	292 - 315	2882			AR060: 7, AR316: 6, AR089: 5 H0229: 1					
276	HBQAC72	799512	286	741 - 974	2883	Thr-49 to Gly-55, Ser-70 to Glu-77.		AR060: 4, AR316: 4, AR089: 4 H0229: 1 and S6028: 1.					
277	HBQAE37	637526	287	208 - 321	2884			H0229: 1 and H0123: 1.	4q12-q13.3	103600, 103600, 103600, 104150, 104150, 104500, 125490, 164920, 164920, 164920.			

Variable	Mean	SD	Min	Max
Age (years)	34.5	10.2	21	55
Gender (Male/Female)	15/15	0	0	30
Marital status (Married/Single)	10/10	0	0	20
Education (High school/College/Postgraduate)	10/10/0	0	0	20
Occupation (Student/Teacher/Other)	10/10/0	0	0	20
Religion (Muslim/Hindu/Other)	10/10/0	0	0	20
Family size (1-3/4-6/7-9/10-12)	10/10/0/0	0	0	20
Income (Less than 1000/1000-2000/More than 2000)	10/10/0	0	0	20
Health status (Good/Fair/Poor)	10/10/0	0	0	20
Smoking status (Smoker/Non-smoker)	10/10	0	0	20
Alcohol consumption (Yes/No)	10/10	0	0	20
Exercise frequency (Daily/Weekly/Monthly/None)	10/10/0/0	0	0	20
Stress level (Low/Medium/High)	10/10/0	0	0	20
Sleep quality (Good/Fair/Poor)	10/10/0	0	0	20
Appetite (Good/Fair/Poor)	10/10/0	0	0	20
Weight change (Gain/Loss/No change)	10/10/0	0	0	20
Blood pressure (Normal/High/Low)	10/10/0	0	0	20
Blood sugar (Normal/High/Low)	10/10/0	0	0	20
Cholesterol (Normal/High/Low)	10/10/0	0	0	20
Heart rate (Normal/High/Low)	10/10/0	0	0	20
Respiratory rate (Normal/High/Low)	10/10/0	0	0	20
Oxygen saturation (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability index (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery index (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve index (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability index (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery index (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve index (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability index (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery index (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve index (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability index (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery index (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve index (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability index (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery index (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve index (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability index (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery index (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve index (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability index (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery index (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve index (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability index (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery index (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve index (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability index (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery index (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve index (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability index (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery index (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve index (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability index (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery index (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve index (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability index (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery index (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve index (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability index (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery index (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve index (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability index (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery index (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve index (Normal/High/Low)	10/10/0	0	0	20
Heart rate variability index (Normal/High/Low)	10/10/0	0	0	20
Heart rate recovery index (Normal/High/Low)	10/10/0	0	0	20
Heart rate reserve index (Normal/High/Low)	10/10/0	0	0	20

278	HBSAJ63	848683	288	1256 - 1444	2885		H0253: 8, L0439: 8, L0769: 7, H0618: 6, L0758: 6, H0052: 5, L0749: 5, H0617: 4, H0135: 4, L0766: 4, S0406: 4, S0001: 3, H0255: 3, S0410: 3, H0619: 3, S0422: 3, L0775: 3, L0378: 3, H0547: 3, H0521: 3, L0742: 3, L0750: 3, L0755: 3, L0757: 3, S0434: 3, L0605: 3, H0381: 2, H0419: 2, H0341: 2, S0420: 2, H0550: 2, H0438: 2, H0599: 2, H0318: 2, H0046: 2, H0050: 2, H0012: 2, H0024: 2, S0050: 2, T0010: 2, L0455: 2, H0412: 2, H0413: 2, H0494: 2, L0772: 2, L0645: 2, L0764: 2, L0771: 2, L0662: 2, L0666: 2, L0665: 2, L0438: 2, H0520: 2, H0519: 2, H0134: 2, L0741: 2, L0748: 2, L0751: 2, L0747: 2, L0777: 2, L0759: 2, H0445: 2, L0596: 2, L0603: 2, L0411: 1, H0556: 1, S0114: 1, S0218: 1, H0656: 1, S0116: 1, H0125: 1, S0418: 1, S0354: 1, S0360: 1, H0729: 1, H0730: 1, H0722: 1, H0728: 1, H0733: 1, L0717: 1, S0278: 1, H0549: 1, H0370: 1, H0392: 1, H0613: 1, H0013: 1, H0427: 1, H0575: 1, T0082: 1, H0706: 1, H0036: 1, H0421: 1, S0049: 1, H0194: 1, H0085: 1, H0231: 1, L0041: 1, H0041: 1, H0009: 1, H0123: 1, H0620: 1, H0199: 1, H0246: 1, H0014: 1, L0163: 1, H0594: 1, S0628: 1, H0266: 1, H0188: 1, H0687: 1, H0288: 1, H0033: 1, H0181: 1, S0364: 1, S0366: 1, S0036: 1, H0038: 1	170650, 600900 133701, 168500, 171650, 176930, 176930, 600623, 600811, 600958
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						1, H0616: 1, H0264: 1, H0268: 1, H0117: 1, S0038: 1, H0100: 1, L0351: 1, L0435: 1, T0041: 1, T0042: 1, S0448: 1, S0142: 1, S0002: 1, H0529: 1, L0796: 1, L0639: 1, L5575: 1, L5566: 1, L0761: 1, L0374: 1, L0648: 1, L0768: 1, L0649: 1, L0803: 1, L0375: 1, L0805: 1, L0776: 1, L0655: 1, L0659: 1, L0526: 1, L0783: 1, L0793: 1, H0144: 1, H0690: 1, H0660: 1, S0330: 1, H0539: 1, S0378: 1, S0152: 1, H0522: 1, H0694: 1, H0555: 1, S3012: 1, S0390: 1, S3014: 1, S0028: 1, L0743: 1, L0779: 1, L0752: 1, H0444: 1, S0436: 1, L0581: 1, H0543: 1, H0423: 1, S0458: 1 and H0506: 1.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</
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Variable	Mean	SD	Min	Max
Age	34.2	10.5	21	55
Gender				
Male	52.1			
Female	47.9			
Marital status				
Married	68.3			
Single	31.7			
Education				
High school	15.2			
College	35.8			
Postgraduate	49.0			
Income				
Low	25.1			
Medium	45.3			
High	29.6			
Occupation				
Manager	18.7			
Professional	32.4			
Service	22.5			
Unemployed	26.4			
Health status				
Good	78.9			
Fair	15.2			
Poor	5.9			
Smoking status				
Smoker	35.6			
Nonsmoker	64.4			
Alcohol consumption				
Frequent	12.3			
Occasional	28.7			
Never	59.0			
Exercise frequency				
Regular	22.1			
Irregular	38.5			
None	39.4			
Stress level				
Low	18.9			
Medium	42.3			
High	38.8			
Life satisfaction				
Satisfied	65.4			
Dissatisfied	34.6			
Overall health score	72.5	15.2	50	100

280	HBSD24	839802	290	833 - 961	2887			2, L0603: 2, L0411: 1, H0556: 1, S0114: 1, S0218: 1, H0656: 1, S0116: 1, H0125: 1, S0418: 1, S0354: 1, S0360: 1, H0729: 1, H0730: 1, H0722: 1, H0728: 1, H0733: 1, L0717: 1, S0278: 1, H0549: 1, H0370: 1, H0392: 1, H0613: 1, H0013: 1, H0427: 1, H0575: 1, T0082: 1, H0706: 1, H0036: 1, H0421: 1, S0049: 1, H0194: 1, H0085: 1, H0231: 1, L0041: 1, H0041: 1, H0009: 1, H0123: 1, H0620: 1, H0199: 1, H0246: 1, H0014: 1, L0163: 1, H0594: 1, S6028: 1, H0266: 1, H0188: 1, H0687: 1, H0288: 1, H0033: 1, H0181: 1, S0364: 1, S0366: 1, S0036: 1, H0038: 1, H0616: 1, H0264: 1, H0268: 1, H0117: 1, S0038: 1, H0100: 1, L0351: 1, L0435: 1, T0041: 1, T0042: 1, S0448: 1, S0142: 1, S0002: 1, H0529: 1, L0796: 1, L0639: 1, L5575: 1, L5566: 1, L0761: 1, L0374: 1, L0648: 1, L0768: 1, L0649: 1, L0803: 1, L0375: 1, L0805: 1, L0776: 1, L0655: 1, L0659: 1, L0526: 1, L0783: 1, L0793: 1, H0144: 1, H0690: 1, H0660: 1, S0330: 1, H0539: 1, S0378: 1, S0152: 1, H0522: 1, H0694: 1, H0555: 1, S3012: 1, S0390: 1, S3014: 1, S0028: 1, L0743: 1, L0779: 1, L0752: 1, H0444: 1, S0436: 1, L0581: 1, H0543: 1, H0423: 1, S0458: 1 and H0506: 1. AR089: 9, AR316: 9, AR060: 9 L0761: 4, L0766: 4, L0747:	
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281	HBWBD25	800765	291	182 - 328	2888				4, L0759: 3, H0617: 2, L0800: 2, L0764: 2, L0768: 2, L0775: 2, L0653: 2, L0809: 2, L0665: 2, H0144: 2, L0438: 2, H0651: 2, L0748: 2, L0750: 2, L0755: 2, L0731: 2, L0758: 2, H0657: 1, H0656: 1, H0419: 1, S0212: 1, S0376: 1, S0360: 1, L0021: 1, H0581: 1, H0150: 1, H0594: 1, S0628: 1, H0687: 1, H0606: 1, H0135: 1, S0038: 1, S0372: 1, S0344: 1, S0002: 1, L0770: 1, L0771: 1, L0662: 1, L0794: 1, L0774: 1, L0527: 1, L0542: 1, L0383: 1, L0792: 1, S0374: 1, L0352: 1, S0454: 1, L0741: 1, L0439: 1, L0754: 1, L0756: 1, L0596: 1 and L0366: 1.		
282	HBXAS93	836513	292	215 - 250	2889				AR089: 2, AR316: 1 H0351: 2, S0412: 2, H0486: 1, S0386: 1, H0625: 1 and L0748: 1.		
283	HBXAT27	815571	293	1097 - 1219	2890			His-25 to Phe-30.	AR089: 16, AR316: 11, AR060: 6 S0038: 1 AR089: 5, AR316: 4, AR060: 3 S0414: 11, L0748: 7, L0741: 6, H0013: 5, L0747: 5, L0758: 5, L0717: 4, H0144: 4, L0591: 4, H0431: 3, H0090: 3, T0042: 3, L0439: 3, L0749: 3, L0593: 3, H0556: 2, S0476: 2, H0619: 2, H0574: 2, H0575: 2, S0010: 2, H0052: 2, L0471: 2, H0266: 2, H0622: 2, H0169: 2, H0124: 2, S0036: 2, H0264: 2, S0038: 2, H0100: 2, L0065: 2, L0796: 2, L0772: 2, L0662: 2, L0766: 2, L0774: 2, L0375: 2, L0655: 2pter-p25.1		

								2, L0665: 2, H0660: 2, L0754: 2, H0422: 2, H0686: 1, S0040: 1, L0460: 1, S0624: 1, S0218: 1, H0657: 1, H0341: 1, H0255: 1, H0661: 1, H0664: 1, S0356: 1, H0580: 1, H0393: 1, S0222: 1, H0438: 1, H0592: 1, H0586: 1, T0039: 1, H0036: 1, H0390: 1, S0346: 1, H0318: 1, H0050: 1, H0057: 1, H0014: 1, H0015: 1, H0051: 1, T0010: 1, H0083: 1, H0239: 1, H0252: 1, H0615: 1, H0428: 1, H0030: 1, H0032: 1, H0673: 1, L0455: 1, H0087: 1, H0477: 1, H0488: 1, H0102: 1, S0422: 1, H0529: 1, L0763: 1, L0770: 1, L0638: 1, L0761: 1, L0373: 1, L0646: 1, L0643: 1, L0363: 1, L0804: 1, L0775: 1, L0805: 1, L0653: 1, L0776: 1, L0659: 1, L0635: 1, L0783: 1, L4501: 1, L0663: 1, L0438: 1, H0520: 1, H0547: 1, H0519: 1, H0593: 1, S0328: 1, H0539: 1, S0380: 1, S0044: 1, S0406: 1, S0027: 1, L0779: 1, L0759: 1, H0445: 1, H0595: 1, S0434: 1, S0436: 1, L0361: 1, H0423: 1 and H0008: 1.					
284	HBXAW57	815650	294	152 - 262	2891			AR089: 8, AR316: 5, AR060: 3 S0038: 2					
285	HBXB129	847000	295	87 - 173	2892	Met-1 to Ala-7.		L0758: 4, L0794: 2, L0779: 2, H0261: 1, S0038: 1 and L0791: 1.					
286	HBXBM24	823353	296	85 - 225	2893			S0038: 1 and L0770: 1.					
287	HBXBM78	812527	297	2163 - 2522	2894	Arg-24 to Gly-29, Gly-43 to Arg-49.		AR089: 12, AR316: 9, AR060: 5 H0622: 4, H0650: 1, S0046: 1, H0549: 1, H0013: 1, H0024:	16q22	103850, 114835, 121360, 217800, 218030			

288	HBXCD59	860439	298	165 - 362	2895	Met-1 to Cys-7, Leu-21 to Arg-44, Ala-53 to Ser-60.	1, H0271: 1, S0038: 1, S0152: 1, H0521: 1 and H0522: 1. L0439: 5, L0438: 3, L0769: 2, L0759: 2, S0001: 1, S0282: 1, S0300: 1, S0222: 1, H0438: 1, S0010: 1, S0049: 1, H0052: 1, H0572: 1, T0010: 1, S0038: 1, H0521: 1, L0756: 1 and L0366: 1.			
289	HBXCE43	809108	299	349 - 363	2896		S0038: 1			
290	HBXCG08	628501	300	260 - 313	2897		AR089: 14, AR316: 9, AR060: 5 H0031: 3, L0741: 3, L0757: 2, L0032: 1, H0123: 1, L0455: 1, H0135: 1, S0038: 1, H0100: 1, L0659: 1, L0792: 1, L0665: 1, S0380: 1 and L0591: 1.			
291	HBXCM52	799513	301	366 - 479	2898		AR089: 11, AR316: 7, AR060: 4 S0222: 3, H0100: 2, L0438: 2, L0759: 2, L0592: 2, L0593: 2, S0114: 1, S0001: 1, H0208: 1, H0123: 1, H0012: 1, H0620: 1, S6028: 1, H0328: 1, H0413: 1, S0038: 1, T0042: 1, H0547: 1, L0439: 1 and L0608: 1.			
292	HBXCQ03	589516	302	231 - 398	2899	Thr-4 to Arg-10, Pro-42 to Ser-47.	L0758: 9, L0752: 8, L0731: 6, L0748: 5, L0740: 5, L0747: 5, H0014: 4, L0774: 4, L0754: 4, L0756: 4, L0755: 4, S0358: 3, S0360: 3, H0083: 3, H0032: 3, H0059: 3, L0770: 3, L0766: 3, L0803: 3, L0776: 3, L0750: 3, L0757: 3, H0171: 2, H0265: 2, H0657: 2, H0156: 2, H0428: 2, T0006: 2, H0090: 2, H0625: 2, L0769: 2, L0806: 2, L0655: 2, H0659: 2, S0152: 2, H0521: 2, H0694: 2, S3012: 2, L0439: 2,	11		

293	HBXCR15	731861	303	158 - 259	2900	Gly-17 to Ala-22, Pro-24 to Pro-33.	2, L0588: 2, S0026: 2, H0624: 1, S0402: 1, T0049: 1, S0420: 1, L0005: 1, S0354: 1, H0489: 1, S0045: 1, S0046: 1, S6026: 1, L0717: 1, S0278: 1, H0592: 1, H0013: 1, S0280: 1, H0575: 1, H0318: 1, H0596: 1, T0110: 1, H0024: 1, S0051: 1, H0179: 1, H0687: 1, H0119: 1, H0553: 1, H0673: 1, H0591: 1, H0268: 1, S0038: 1, H0494: 1, S0150: 1, H0641: 1, S0210: 1, L0520: 1, L0772: 1, L0764: 1, L0773: 1, L0768: 1, L0364: 1, L0649: 1, L0388: 1, L0775: 1, L0512: 1, L0783: 1, L0384: 1, L0809: 1, L0666: 1, L0665: 1, S0126: 1, H0651: 1, S0328: 1, H0539: 1, S0378: 1, S0380: 1, S0027: 1, L0786: 1, L0759: 1, L0608: 1, L0604: 1, H0216: 1, S0276: 1, H0543: 1, H0506: 1 and H0352: 1.	19p13.3	108725, 120700, 133171, 136836, 145981, 147141, 164953, 188070, 600957, 601238, 601846, 602216, 602477
294	HBXDL52	873460	304	1040 - 1066	2901		L0439: 18, H0441: 8, L0157: 7, S0007: 3, H0052: 3, L0769: 3, S0001: 2, S0222: 2, H0100: 2, L0805: 2, L0756: 2, S0282: 1, S6026: 1, H0261: 1, H0455: 1, H0194: 1, H0009: 1, H0201: 1, S0388: 1, T0010: 1, S6028: 1, H0087: 1, S0038: 1, S0112: 1, L0770: 1, L0796: 1, L0776: 1, L0790: 1, H0144: 1, L0741: 1, L0742: 1, L0786: 1 and L0592: 1.		
							L0438: 4, L0439: 3, L0779: 3, L0785: 2, L0471: 2, S0038: 2, L0521: 2, S0116: 1, S0360: 1, H0637: 1, S0222: 1, H0486: 1, H0013: 1, H0004: 1, H0052: 1		

295	HBXDL52	889328	305	1040 - 1066	2902			1, H0012: 1, H0038: 1, H0616: 1, L0803: 1, L0789: 1, S0053: 1, L0731: 1, L0758: 1, L0599: 1 and L0594: 1. L0438: 4, L0439: 3, L0779: 3, L0785: 2, L0471: 2, S0038: 2, L0521: 2, S0116: 1, S0360: 1, H0637: 1, S0222: 1, H0486: 1, H0013: 1, H0004: 1, H0052: 1, H0012: 1, H0038: 1, H0616: 1, L0803: 1, L0789: 1, S0053: 1, L0731: 1, L0758: 1, L0599: 1 and L0594: 1.		
296	HBXDN08	566765	306	67 - 141	2903			AR175: 16, AR270: 14, AR179: 13, AR269: 11, AR284: 11, AR183: 11, AR295: 11, AR290: 10, AR033: 10, AR268: 10, AR293: 10, AR296: 10, AR263: 9, AR285: 9, AR096: 9, AR247: 9, AR292: 9, AR184: 8, AR104: 8, AR267: 8, AR286: 7, AR298: 7, AR182: 7, AR266: 7, AR256: 7, AR299: 7, AR219: 7, AR218: 7, AR240: 6, AR186: 6, AR289: 6, AR089: 6, AR274: 6, AR237: 5, AR291: 5, AR294: 5, AR259: 5, AR316: 5, AR258: 4, AR177: 4, AR241: 4, AR192: 4, AR231: 4, AR265: 4, AR206: 4, AR238: 4, AR060: 3, AR273: 3, AR275: 3, AR039: 3, AR205: 3, AR185: 3, AR282: 3, AR226: 3.	13	

[illegible]

297	HBXDN65	840021	307	187 - 297				1, H0594: 1, H0179: 1, H0271: 1, H0188: 1, S0003: 1, H0688: 1, H0622: 1, H0031: 1, H0135: 1, H0038: 1, H0616: 1, H0087: 1, H0264: 1, H0413: 1, H0100: 1, H0396: 1, S0464: 1, H0647: 1, S0210: 1, S0426: 1, L3904: 1, L0761: 1, L0800: 1, L0642: 1, L0521: 1, L0766: 1, L0804: 1, L0774: 1, L0806: 1, L0805: 1, L0657: 1, L0558: 1, L0367: 1, L0791: 1, L0792: 1, L0666: 1, L0663: 1, L0664: 1, H0520: 1, H0519: 1, H0435: 1, H0672: 1, S0328: 1, S0330: 1, L0779: 1, L0755: 1, L0757: 1, H0665: 1, S0192: 1 and H0542: 1.		
298	HBXFA04	842901	308	411 - 536		Gly-25 to Glu-34.		S6016: 1 and S0038: 1. AR060: 4, AR316: 3, AR089: 3 L0758: 2 and H0438: 1.		
299	HBXFE64	838824	309	15 - 116				H0438: 1		
300	HBXFI33	610452	310	124 - 495		Pro-87 to Glu-96, Thr-98 to Thr-103.		AR202: 4, AR244: 3, AR313: 3, AR205: 2, AR282: 2, AR204: 2, AR273: 2, AR186: 2, AR055: 1, AR277: 1, AR267: 1, AR052: 1, AR266: 1, AR310: 1, AR247: 1, AR233: 1, AR206: 1, AR089: 1, AR231: 1, AR182: 1, AR061: 1, AR185: 1, AR060: 1, AR033: 1, AR232: 1 H0305: 1 and H0438: 1.		
301	HBXFP72	688040	311	122 - 235	2908			S0360: 2, L0776: 2, L0747: 2, L0758: 2, L0362: 2, S0418: 1, H0438: 1, H0581: 1, H0179: 1	5pter-p15.1	

302	HBXFS31	815651	312	20 - 70	2909			1, S0003: 1, H0039: 1, T0023: 1, L0796: 1, L0766: 1, L0653: 1, L0527: 1, L0659: 1, L0666: 1, L0663: 1, L0664: 1, S0148: 1, H0547: 1, H0689: 1, H0648: 1, H0576: 1, L0748: 1, L0754: 1, L0777: 1, L0759: 1 and H0543: 1.		
303	HBXFW01	847001	313	125 - 670	2910	Leu-28 to Lys-34, Leu-83 to Ser-90, Glu-102 to Glu-109, Glu-118 to Glu-123, Thr-134 to Cys-163, Asn-165 to Ser-182.		H0438: 1 and L0759: 1. L0439: 9, T0010: 6, L0592: 6, L0500: 3, L0759: 3, L0794: 2, L0442: 1, S0282: 1, S0007: 1, S0220: 1, H0438: 1, H0434: 1, H0052: 1, H0327: 1, H0009: 1, H0562: 1, S0036: 1, L0351: 1, L0768: 1, L0776: 1, L0635: 1, L0352: 1, L0741: 1, L0786: 1 and S0106: 1.	8	
304	HBXGE12	1310891	314	52 - 414	2911	Asp-39 to Ala-50, Lys-80 to Cys-85.		L0769: 10, L0439: 7, S0049: 2, H0052: 2, S0051: 2, L0742: 2, S0110: 1, L0617: 1, S0300: 1, H0441: 1, H0438: 1, H0485: 1, H0486: 1, H0374: 1, H0571: 1, H0708: 1, L0598: 1, L0770: 1, L0639: 1, L0771: 1, L0768: 1, L0794: 1, L0774: 1, L0788: 1, S0053: 1, H0539: 1, L0749: 1, L0758: 1, S0031: 1, L0593: 1 and S0106: 1.		
305	HBXGL91	901845	315	80 - 190	2912	Asp-39 to Ala-50, Lys-80 to Cys-85.		AR039: 7, AR198: 5, AR247: 4, AR263: 4, AR265: 4, AR310: 3, AR204: 3, AR294: 2, AR249: 2, AR292: 2, AR296: 2, AR293: 2, AR192: 2, AR240: 2, AR205: 2, AR033: 2,	12q21.3-q21.4	

[illegible]

312	HCDA24	806565	322	342 - 890	2919	Ala-85 to Thr-90, Glu-149 to Gly-155, Pro-157 to Asn-166.	1, L0743: 1, L0439: 1, L0750: 1, L0777: 1, L0755: 1, H0445: 1 and L0588: 1. AR183: 16, AR177: 11, AR175: 7, AR060: 6, AR290: 5, AR285: 4, AR284: 4, AR089: 4, AR294: 4, AR316: 4, AR269: 4, AR295: 3, AR289: 3, AR247: 3, AR179: 3, AR182: 3, AR251: 2, AR270: 2, AR299: 2, AR313: 2, AR184: 2, AR033: 2, AR240: 2, AR231: 2, AR266: 2, AR053: 2, AR055: 2, AR267: 1, AR293: 1, AR186: 1, AR291: 1, AR061: 1, AR256: 1, AR282: 1, AR233: 1, AR213: 1, AR238: 1, AR244: 1, AR292: 1, AR096: 1, AR259: 1 L0764: 4, L0777: 4, H0618: 3, H0251: 3, S0358: 2, H0253: 2, H0052: 2, H0617: 2, L0743: 2, H0657: 1, H0255: 1, H0661: 1, H0662: 1, H0402: 1, H0638: 1, S0354: 1, L0622: 1, H0546: 1, S0028: 1, H0213: 1, L0772: 1, L0775: 1, L0657: 1, L0659: 1, L0809: 1, L0666: 1, S0330: 1, S0378: 1, H0696: 1, S0404: 1, H0478: 1, L0744: 1, L0750: 1, L0753: 1, L0731: 1 and H0445: 1.			
313	HCDA24	894773	323	427 - 855	2920		AR183: 16, AR177: 11, AR175: 7, AR060: 6, AR290: 5, AR285: 4,			

314	HCDAFI7	722206	324	12 - 119	2921		<p>AR284: 4, AR089: 4, AR294: 4, AR316: 4, AR269: 4, AR295: 3, AR289: 3, AR247: 3, AR179: 3, AR182: 3, AR251: 2, AR270: 2, AR299: 2, AR313: 2, AR184: 2, AR033: 2, AR240: 2, AR231: 2, AR266: 2, AR053: 2, AR055: 2, AR267: 1, AR293: 1, AR186: 1, AR291: 1, AR061: 1, AR256: 1, AR282: 1, AR233: 1, AR213: 1, AR238: 1, AR244: 1, AR292: 1, AR096: 1, AR259: 1 L0764: 4, L0777: 4, H0618: 3, H0251: 3, S0358: 2, H0253: 2, H0052: 2, H0617: 2, L0743: 2, H0657: 1, H0255: 1, H0661: 1, H0662: 1, H0402: 1, H0638: 1, S0354: 1, L0622: 1, H0546: 1, S6028: 1, H0213: 1, L0772: 1, L0775: 1, L0657: 1, L0659: 1, L0809: 1, L0666: 1, S0330: 1, S0378: 1, H0696: 1, S0404: 1, H0478: 1, L0744: 1, L0750: 1, L0753: 1, L0731: 1 and H0445: 1. L0439: 10, L0438: 7, S0356: 4, H0251: 4, L0649: 3, L0803: 3, L0754: 3, H0156: 2, L0471: 2, H0031: 2, H0551: 2, L0771: 2, H0547: 2, L0743: 2, H0686: 1, H0650: 1, H0341: 1, S0418: 1, S0444: 1, S0410: 1, S0045: 1, S0300: 1, H0486: 1, H0266: 1, H0673: 1, H0413: 1, H0560:</p>	Xp22.1-p22.2	<p>300075, 300077, 301200, 302350, 302801, 305435, 306000, 306000, 306100, 307800, 308800, 309510, 311200, 311770, 312040, 312170, 312700, 313400</p>
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315	HCDAH02	653066	325	495 - 665	2922	Glu-40 to Thr-46.	1, H0509: 1, L0369: 1, L0763: 1, L0662: 1, L0794: 1, L0659: 1, L0789: 1, L0663: 1, S0126: 1, H0435: 1, H0660: 1, H0539: 1, S0152: 1, S0037: 1, S0028: 1, L0756: 1, L0755: 1, L0759: 1 and S0242: 1. AR089: 11, AR316: 10, AR060: 9 H0265: 1, H0556: 1, H0251: 1, L0777: 1 and L0731: 1.	2		
316	HCDAP33	566794	326	126 - 209	2923		H0694: 54, L0731: 23, L0747: 21, L0748: 12, L0758: 12, L0766: 10, L0769: 8, L0775: 8, H0599: 7, L0776: 7, L0749: 7, L0771: 6, L0770: 5, L0519: 5, S0374: 5, L0750: 5, L0757: 5, H0685: 4, S0007: 4, S0222: 4, L0623: 4, H0413: 4, S0144: 4, L0761: 4, H0659: 4, L0752: 4, H0657: 3, H0341: 3, S0278: 3, H0392: 3, H0024: 3, H0266: 3, H0031: 3, S0038: 3, H0494: 3, S0440: 3, L0598: 3, L0803: 3, L0805: 3, S0126: 3, S0328: 3, H0521: 3, L0755: 3, L0759: 3, S0026: 3, H0624: 2, H0170: 2, H0171: 2, T0002: 2, T0049: 2, L0808: 2, S0116: 2, H0638: 2, S0132: 2, H0441: 2, H0333: 2, H0327: 2, H0012: 2, H0014: 2, S0003: 2, H0674: 2, H0040: 2, H0087: 2, S0438: 2, H0646: 2, S0344: 2, L0772: 2, L0764: 2, L0521: 2, L0768: 2, L0658: 2, L0789: 2, L0666: 2, H0658: 2, S0004: 2, H0696: 2, H0134: 2, S0206: 2, L0439: 2, L0756: 2, S0031: 2, L0581: 2, H0653: 2, H0136: 2, H0352: 2,	3q27		109565, 109565, 142640, 228960, 261515, 600044

									H0395: 1, H0686: 1, H0294: 1, S0114: 1, S0218: 1, L0785: 1, S0212: 1, H0484: 1, H0483: 1, H0663: 1, H0662: 1, S0358: 1, S0444: 1, S0360: 1, S0046: 1, H0351: 1, H0431: 1, H0453: 1, H0611: 1, H0409: 1, H0592: 1, H0492: 1, L0622: 1, H0486: 1, L0586: 1, T0060: 1, H0156: 1, H0098: 1, T0048: 1, S0049: 1, H0052: 1, H0251: 1, H0309: 1, T0115: 1, H0544: 1, H0545: 1, H0081: 1, L0471: 1, H0620: 1, H0015: 1, H0373: 1, L0163: 1, S0051: 1, H0188: 1, S0214: 1, H0622: 1, H0321: 1, H0163: 1, H0090: 1, H0591: 1, H0038: 1, T0067: 1, H0412: 1, T0041: 1, H0641: 1, S0142: 1, S0422: 1, L0762: 1, L0763: 1, L0371: 1, L0638: 1, L0643: 1, L0662: 1, L0767: 1, L0549: 1, L0651: 1, L0806: 1, L0655: 1, L0606: 1, L0657: 1, L0659: 1, L0542: 1, L0783: 1, L0384: 1, L0544: 1, L0647: 1, L0663: 1, L0665: 1, S0052: 1, S0216: 1, H0144: 1, H0547: 1, H0690: 1, H0670: 1, H0651: 1, H0710: 1, S0152: 1, S0406: 1, S3012: 1, S3014: 1, S0028: 1, L0742: 1, L0744: 1, L0754: 1, L0777: 1, H0343: 1, H0595: 1, S0434: 1, L0588: 1, L0599: 1, S0011: 1, H0665: 1, H0667: 1, S0276: 1, H0423: 1 and H0422: 1.					
317	HCDAR40	654821	327	102 - 224	2924				S0114: 1, S0045: 1, H0318: 1 and H0251: 1.					
318	HCDAS02	896667	328	136 - 870	2925	Thr-70 to Ala-77.			AR089: 12, AR316: 12, AR060: 12					

a) 17-18 years		b) 19-24 years		c) 25-34 years		d) 35-44 years		e) 45-54 years		f) 55-64 years		g) 65-74 years		h) 75-84 years		i) 85-94 years		j) 95-104 years	
Age	Sex	Age	Sex	Age	Sex	Age	Sex	Age	Sex	Age	Sex	Age	Sex	Age	Sex	Age	Sex	Age	Sex
17	M	19	M	25	M	35	M	45	M	55	M	65	M	75	M	85	M	95	M
17	F	19	F	25	F	35	F	45	F	55	F	65	F	75	F	85	F	95	F
18	M	20	M	26	M	36	M	46	M	56	M	66	M	76	M	86	M	96	M
18	F	20	F	26	F	36	F	46	F	56	F	66	F	76	F	86	F	96	F
19	M	21	M	27	M	37	M	47	M	57	M	67	M	77	M	87	M	97	M
19	F	21	F	27	F	37	F	47	F	57	F	67	F	77	F	87	F	97	F
20	M	22	M	28	M	38	M	48	M	58	M	68	M	78	M	88	M	98	M
20	F	22	F	28	F	38	F	48	F	58	F	68	F	78	F	88	F	98	F
21	M	23	M	29	M	39	M	49	M	59	M	69	M	79	M	89	M	99	M
21	F	23	F	29	F	39	F	49	F	59	F	69	F	79	F	89	F	99	F
22	M	24	M	30	M	40	M	50	M	60	M	70	M	80	M	90	M	100	M
22	F	24	F	30	F	40	F	50	F	60	F	70	F	80	F	90	F	100	F
23	M	25	M	31	M	41	M	51	M	61	M	71	M	81	M	91	M	100	M
23	F	25	F	31	F	41	F	51	F	61	F	71	F	81	F	91	F	100	F
24	M	26	M	32	M	42	M	52	M	62	M	72	M	82	M	92	M	100	M
24	F	26	F	32	F	42	F	52	F	62	F	72	F	82	F	92	F	100	F
25	M	27	M	33	M	43	M	53	M	63	M	73	M	83	M	93	M	100	M
25	F	27	F	33	F	43	F	53	F	63	F	73	F	83	F	93	F	100	F
26	M	28	M	34	M	44	M	54	M	64	M	74	M	84	M	94	M	100	M
26	F	28	F	34	F	44	F	54	F	64	F	74	F	84	F	94	F	100	F
27	M	29	M	35	M	45	M	55	M	65	M	75	M	85	M	95	M	100	M
27	F	29	F	35	F	45	F	55	F	65	F	75	F	85	F	95	F	100	F
28	M	30	M	36	M	46	M	56	M	66	M	76	M	86	M	96	M	100	M
28	F	30	F	36	F	46	F	56	F	66	F	76	F	86	F	96	F	100	F
29	M	31	M	37	M	47	M	57	M	67	M	77	M	87	M	97	M	100	M
29	F	31	F	37	F	47	F												

319	HCDBE76	840076	329	260 - 406	2926	<p>L0439: 7, H0617: 6, H0181: 5, H0661: 3, L0769: 3, L0809: 3, L0751: 3, H0657: 2, S0408: 2, S0222: 2, H0618: 2, H0560: 2, L0764: 2, L0648: 2, L0665: 2, L0752: 2, S0434: 2, H0265: 1, H0556: 1, S0040: 1, H0716: 1, H0656: 1, H0341: 1, H0484: 1, H0669: 1, H0638: 1, S0356: 1, H0675: 1, H0580: 1, S0300: 1, H0333: 1, H0559: 1, L0021: 1, H0253: 1, H0052: 1, H0251: 1, H0041: 1, H0569: 1, H0123: 1, H0014: 1, S0051: 1, H0399: 1, H0510: 1, H0266: 1, H0267: 1, H0424: 1, H0673: 1, H0124: 1, H0708: 1, H0087: 1, H0379: 1, H0264: 1, H0059: 1, H0646: 1, S0144: 1, L0763: 1, L0770: 1, L0638: 1, L0637: 1, L0761: 1, L0642: 1, L0643: 1, L0644: 1, L0662: 1, L0383: 1, L0789: 1, L0791: 1, L0666: 1, L0663: 1, H0547: 1, H0696: 1, H0555: 1, S0028: 1, L0748: 1, L0747: 1, L0779: 1, L0758: 1, H0707: 1, S0436: 1, S0276: 1 and S0042: 1.</p> <p>AR089: 9, AR316: 8, AR060: 8</p> <p>L0748: 17, L0740: 7, L0777: 5, S0140: 4, H0457: 4, H0013: 3, H0615: 3, S0002: 3, L0763: 3, L0665: 3, L0439: 3, L0758: 3, H0662: 2, H0628: 2, L0766: 2, L0803: 2, L0809: 2, L0750: 2, L0756: 2, L0755: 2, L0731: 2, H0170: 1, S0001: 1, H0580: 1, H0411: 1, H0575: 1, T0082: 1, H0251: 1, T0115: 1, L0471: 1.</p>	14q21.1-q21.3	182600, 232700, 602086
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320	HCDBO32	831942	330	1669 - 1884	2927	Val-2 to Thr-7.	1, S0003: 1, H0688: 1, H0031: 1, L0456: 1, H0591: 1, L0369: 1, L0520: 1, L0764: 1, L0649: 1, L0774: 1, L0375: 1, L0776: 1, H0519: 1, H0689: 1, H0539: 1, S0380: 1, H0696: 1, L0743: 1, L0747: 1, L0779: 1, L0780: 1, L0759: 1, S0192: 1 and H0543: 1. AR089: 7, AR316: 6, AR060: 5 L0803: 7, L0766: 4, L0777: 4, L0666: 3, H0521: 3, T0115: 2, H0687: 2, L0809: 2, H0659: 2, L0754: 2, L0779: 2, L0759: 2, S0114: 1, H0341: 1, H0351: 1, S0222: 1, H0441: 1, H0013: 1, S0280: 1, H0251: 1, H0544: 1, H0123: 1, H0354: 1, H0266: 1, H0622: 1, H0090: 1, T0041: 1, H0641: 1, L0371: 1, L0646: 1, L0662: 1, L0774: 1, L0805: 1, L0653: 1, L0659: 1, L0635: 1, L0526: 1, L0783: 1, L0663: 1, L0664: 1, L0665: 1, H0144: 1, T0068: 1, H0519: 1, H0682: 1, S0152: 1, S0136: 1, L0744: 1, L0780: 1, L0758: 1, H0444: 1, H0445: 1, L0590: 1, L0594: 1, S0026: 1 and H0422: 1. AR089: 194, AR316: 136, AR060: 84 H0251: 7, L0759: 2, H0657: 1, S0116: 1, S0442: 1, S0360: 1, H0486: 1, H0252: 1, S0440: 1, L0764: 1, L0766: 1, L0665: 1, H0144: 1, L0591: 1, L0608: 1 and H0543: 1. AR089: 40, AR316: 31, AR060: 24				
321	HCDBW67	733860	331	498 - 632	2928	Lys-22 to His-27, Ser-31 to Gly-38.	20				
322	HCDBZ31	701973	332	565 - 609	2929						

323	HCDCB03	571037	333	32 - 451	2930	Gln-7 to Pro-13, Pro-43 to Gly-50, Glu-54 to Asp-60, Ala-77 to Ser-94, Ser-134 to Leu-139.	H0251: 2, S0003: 1 and H0547: 1. S0010: 22, H0144: 12, L0439: 12, L0776: 10, H0032: 9, H0038: 8, H0251: 7, H0171: 6, H0052: 6, L0598: 6, L0438: 6, H0013: 5, S0036: 5, L0519: 5, L0747: 5, H0624: 4, S0222: 4, S0414: 4, H0156: 4, L0749: 4, L0750: 4, L0752: 4, L0599: 4, H0170: 3, S0358: 3, H0550: 3, H0592: 3, S0346: 3, H0050: 3, H0024: 3, S0051: 3, H0252: 3, H0412: 3, L0748: 3, L0756: 3, L0759: 3, S0031: 3, L0588: 3, S0412: 3, H0329: 2, H0374: 2, S0049: 2, T0003: 2, L0163: 2, H0051: 2, S6028: 2, H0328: 2, L0455: 2, L0763: 2, L0521: 2, L0768: 2, L0546: 2, L0532: 2, H0519: 2, S0126: 2, L0753: 2, L0731: 2, L0758: 2, L0589: 2, H0008: 2, L0411: 1, S0110: 1, S0400: 1, S0360: 1, S0007: 1, H0619: 1, S6026: 1, H0175: 1, H0369: 1, H0441: 1, H0431: 1, H0392: 1, H0455: 1, H0438: 1, H0587: 1, H0486: 1, N0009: 1, H0244: 1, L0021: 1, H0196: 1, H0194: 1, H0596: 1, H0327: 1, H0544: 1, H0545: 1, H0046: 1, H0150: 1, N0006: 1, H0565: 1, H0567: 1, H0562: 1, L0471: 1, H0012: 1, S0050: 1, H0020: 1, S0388: 1, H0510: 1, S0318: 1, S0336: 1, S0214: 1, H0428: 1, L0483: 1, H0212: 1, H0163: 1, H0616: 1, H0551: 1, T0067: 1, H0264: 1, H0413: 1, S0038: 1, S0386: 1, H0100: 1, S0464:	4	
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									1, H0538: 1, UNKNWN: 1, L0520: 1, L0770: 1, L0364: 1, L0774: 1, L0775: 1, L0540: 1, L0529: 1, S0148: 1, L0352: 1, S0350: 1, S0028: 1, L0786: 1, L0779: 1, H0595: 1, L0592: 1, L0608: 1, L0361: 1, S0106: 1 and L0697: 1.				
324	HCDCE51	813504	334	46 - 54	2931				AR060: 308, AR316: 282, AR089: 255 H0556: 2, H0251: 2, L0766: 2, L0752: 2, H0713: 1, H0255: 1, L0717: 1, H0592: 1, H0688: 1, L0055: 1, T0041: 1, S0438: 1, L0794: 1, L0803: 1, L0776: 1, L0659: 1, H0698: 1, S0330: 1, S0380: 1, H0522: 1, L0743: 1, L0439: 1, L0777: 1, L0485: 1 and H0423: 1.				
325	HCDCI42	847004	335	216 - 245	2932				AR060: 5, AR316: 4, AR089: 3 H0251: 3, H0581: 1 and S0003: 1.				
326	HCDDDB15	841041	336	668 - 706	2933				AR214: 30, AR222: 26, AR263: 26, AR264: 24, AR217: 23, AR223: 22, AR169: 22, AR235: 21, AR171: 21, AR165: 21, AR164: 20, AR168: 20, AR166: 19, AR266: 19, AR195: 19, AR221: 19, AR311: 19, AR291: 18, AR210: 18, AR216: 18, AR207: 18, AR163: 18, AR172: 17, AR224: 16, AR161: 16, AR162: 16, AR197: 16, AR170: 16, AR104: 16, AR309: 16, AR261: 15, AR240: 15, AR213: 15, AR238: 15,				

[illegible]

Figure 1 consists of 12 subplots, labeled (a) through (l), arranged in a single column. Each subplot shows a time series plot with the x-axis representing time from 0 to 10,000 and the y-axis representing a specific parameter. The subplots are: (a) Average firing rate, (b) Average firing rate (with error bars), (c) Average firing rate (with error bars), (d) Average firing rate (with error bars), (e) Average firing rate (with error bars), (f) Average firing rate (with error bars), (g) Average firing rate (with error bars), (h) Average firing rate (with error bars), (i) Average firing rate (with error bars), (j) Average firing rate (with error bars), (k) Average firing rate (with error bars), and (l) Average firing rate (with error bars). Each plot shows a general upward trend with some fluctuations.

								AR180: 8, AR255: 8, AR096: 8, AR294: 8, AR282: 8, AR198: 8, AR233: 7, AR226: 7, AR204: 7, AR179: 7, AR230: 7, AR060: 7, AR316: 6, AR275: 5, AR274: 4 H0694: 297, H0656: 17, L0803: 8, L0157: 7, L0794: 7, L0747: 6, L0439: 5, L0779: 5, L0755: 5, H0622: 4, L0766: 4, L0805: 4, H0547: 4, H0539: 4, L0771: 3, L0809: 3, L0786: 3, L0731: 3, L0588: 3, S0424: 3, H0497: 2, L0623: 2, H0251: 2, H0546: 2, H0545: 2, H0024: 2, H0252: 2, H0617: 2, H0529: 2, L0769: 2, L0533: 2, L0804: 2, L0774: 2, L0775: 2, L0776: 2, S0126: 2, H0521: 2, S0406: 2, L0744: 2, L0754: 2, L0756: 2, L0596: 2, L0591: 2, L0599: 2, H0556: 1, S0218: 1, H0583: 1, H0657: 1, S0212: 1, H0484: 1, S0420: 1, S0442: 1, S0358: 1, S0376: 1, S0408: 1, H0580: 1, H0208: 1, H0393: 1, H0549: 1, H0643: 1, H0559: 1, H0013: 1, H0427: 1, H0575: 1, H0706: 1, S0474: 1, H0052: 1, H0009: 1, H0178: 1, T0003: 1, S0051: 1, H0375: 1, S6028: 1, H0615: 1, H0031: 1, H0644: 1, H0181: 1, H0032: 1, H0673: 1, S0036: 1, H0135: 1, H0616: 1, S0440: 1, H0633: 1, S0344: 1, L0640: 1, L0763: 1, L0770: 1, L0761: 1, L0800: 1, L0764: 1, L0521: 1, L0768: 1, L0806: 1, L0655: 1,
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327	HCDDX81	603184	337	274 - 417	2934	Lys-23 to Lys-48.	L0782: 1, L0544: 1, L0543: 1, L0787: 1, L0666: 1, L0663: 1, L0665: 1, H0689: 1, H0648: 1, H0710: 1, H0696: 1, H0631: 1, S3012: 1, S3014: 1, L0748: 1, L0777: 1, L0758: 1, L0592: 1, L0362: 1, L0601: 1, H0542: 1, H0543: 1 and H0352: 1.		
328	HCDDY28	892137	338	75 - 170	2935		H0251: 6, L0770: 2, L0762: 1 and L0757: 1. H0136: 2, S0045: 1, H0251: 1, H0413: 1, L0646: 1, L0766: 1 and L0756: 1.		
329	HCDEB19	587264	339	266 - 412	2936	Gln-40 to Cys-48.	L0748: 11, L0742: 10, H0556: 8, H0251: 6, L0769: 6, L0749: 6, L0587: 6, H0265: 5, H0318: 5, H0040: 5, H0144: 5, H0539: 5, L0750: 5, H0009: 4, H0617: 4, L0758: 4, L0601: 4, T0110: 3, H0038: 3, L0768: 3, L0766: 3, L0809: 3, H0341: 2, S0045: 2, S0046: 2, H0013: 2, H0618: 2, S0182: 2, H0083: 2, H0031: 2, H0553: 2, T0042: 2, L0770: 2, L0372: 2, L0791: 2, L0665: 2, H0576: 2, S0027: 2, S0028: 2, L0731: 2, L0608: 2, L0600: 2, H0624: 1, H0685: 1, S0040: 1, H0657: 1, S0001: 1, H0661: 1, H0125: 1, S0358: 1, S0408: 1, H0208: 1, S0132: 1, H0619: 1, L0717: 1, S0222: 1, H0455: 1, H0486: 1, T0082: 1, S0049: 1, H0052: 1, L0738: 1, H0530: 1, H0012: 1, H0024: 1, H0266: 1, H0188: 1, H0687: 1, H0644: 1, L0456: 1, H0135: 1, H0090: 1, H0591: 1, H0063: 1, H0087: 1, T0067: 1, H0264: 1, H0412: 1, H0413: 1, H0059: 1,		

330	HCDEN46	838592	340	83 - 262	2937				H0494: 1, H0561: 1, L0598: 1, H0529: 1, L0763: 1, L0764: 1, L0773: 1, L0662: 1, L0381: 1, L0774: 1, L0375: 1, L0378: 1, L0805: 1, L0655: 1, L0661: 1, L0527: 1, L0656: 1, L0383: 1, L0382: 1, L0666: 1, L0664: 1, H0593: 1, H0435: 1, H0670: 1, H0660: 1, H0648: 1, H0626: 1, S3014: 1, L0744: 1, L0747: 1, H0595: 1, S0436: 1, L0596: 1, L0605: 1, H0543: 1 and S0424: 1.		
									AR089: 91, AR316: 66, AR060: 43 L0439: 13, L0747: 13, L0731: 8, L0438: 6, L0754: 6, L0756: 5, L0755: 5, H0624: 4, H0620: 4, L0803: 4, L0809: 4, L0663: 4, S0152: 4, S0354: 3, L0783: 3, L0666: 3, L0750: 3, L0777: 3, L0752: 3, L0759: 3, S0358: 2, H0393: 2, H0369: 2, H0013: 2, H0575: 2, H0251: 2, H0123: 2, H0050: 2, H0012: 2, H0373: 2, S0250: 2, H0553: 2, H0038: 2, L0770: 2, L0774: 2, L0651: 2, L0805: 2, L0517: 2, L0665: 2, H0144: 2, S0146: 2, L0742: 2, L0748: 2, L0749: 2, L0779: 2, L0757: 2, S0026: 2, H0171: 1, H0662: 1, S0420: 1, S0444: 1, S0046: 1, H0619: 1, H0645: 1, H0411: 1, H0550: 1, H0574: 1, T0039: 1, H0427: 1, H0036: 1, H0178: 1, L0471: 1, S0050: 1, T0010: 1, H0687: 1, H0615: 1, H0644: 1, H0674: 1, H0163: 1, H0090: 1, H0591: 1, T0069: 1, L0763: 1, L0769: 1,		

331	HCEIN56	609997	341	271 - 276	2938			L0764: 1, L0767: 1, L0768: 1, L0794: 1, L0650: 1, L0375: 1, L0784: 1, L0776: 1, L0635: 1, L0384: 1, L5622: 1, L0789: 1, H0520: 1, H0519: 1, S0126: 1, H0435: 1, H0659: 1, H0648: 1, S0328: 1, H0539: 1, S0013: 1, S0044: 1, H0626: 1, S0028: 1, L0744: 1, L0745: 1, L0786: 1, L0753: 1, L0758: 1, L0589: 1, L0590: 1, S0242: 1 and H0506: 1.		
332	HCEID45	664481	342	101 - 235	2939			H0250: 1, H0251: 1, H0031: 1 and L0666: 1. H0052: 4, L0768: 3, L0766: 3, L0438: 3, L0748: 3, L0750: 3, H0657: 2, H0341: 2, H0484: 2, T0042: 2, L0665: 2, H0658: 2, L0743: 2, L0744: 2, L0756: 2, L0777: 2, H0556: 1, H0656: 1, S0420: 1, H0393: 1, L0717: 1, S0222: 1, H0497: 1, H0486: 1, H0013: 1, H0263: 1, N0006: 1, L0579: 1, H0620: 1, L0163: 1, H0594: 1, H0267: 1, H0615: 1, H0688: 1, H0494: 1, H0538: 1, L0769: 1, L0772: 1, L0643: 1, L0794: 1, L0649: 1, L0804: 1, L0774: 1, L0375: 1, L0776: 1, L0789: 1, L0792: 1, L0666: 1, H0144: 1, H0520: 1, H0711: 1, H0690: 1, L0439: 1, L0754: 1, L0745: 1, L0747: 1, L0786: 1, L0780: 1, L0752: 1, H0542: 1 and H0352: 1.	22q12.2	101000, 101000, 101000, 101000, 123620, 138981, 188826, 600850, 601669
333	HCEIN56	821704	343	106 - 222	2940			L0439: 7, L0749: 5, L0766: 3, L0803: 3, L0438: 3, H0052: 2, H0050: 2, H0551: 2, L0764: 2, L0806: 2, L0776: 2, L0659: 2, L0663: 2, L0664: 2, L0748: 2,	Xq28	300031, 300044, 300048, 300049, 300049, 300055, 300100, 300100, 300104, 300126,

334	HCEIT53	843680	344	23 - 145	2941			2, L0731: 2, L0759: 2, H0265: 1, H0556: 1, S0046: 1, H0592: 1, H0587: 1, H0574: 1, H0486: 1, H0244: 1, H0024: 1, H0688: 1, H0030: 1, H0674: 1, H0591: 1, H0264: 1, H0488: 1, H0641: 1, L0761: 1, L0372: 1, L0646: 1, L0768: 1, L0389: 1, L0655: 1, L0382: 1, L0647: 1, L0792: 1, S0152: 1, H0521: 1, L0779: 1, L0777: 1, L0780: 1, L0755: 1, H0445: 1, H0653: 1 and H0542: 1.		301201, 301590, 302060, 302060, 302060, 302060, 302960, 303700, 303800, 303900, 304800, 305900, 305900, 306700, 306995, 308310, 308840, 308840, 308840, 309200, 309548, 309620, 309900, 310300, 310400, 310460, 310460, 311300, 311510, 314300, 314400
335	HCEIY27	637529	345	374 - 775	2942	Thr-23 to Lys-28. Arg-30 to Gly-45, Ser-52 to Ser-65, Gly-101 to Pro-106.		H0052: 1 AR274: 63, AR104: 35, AR309: 28, AR271: 28, AR186: 27, AR052: 27, AR273: 26, AR312: 26, AR033: 25, AR244: 24, AR275: 23, AR313: 22, AR053: 21, AR205: 21, AR282: 20, AR310: 20, AR213: 19, AR219: 18, AR246: 17, AR249: 17, AR096: 17, AR185: 17, AR270: 16, AR243: 16, AR218: 16, AR192: 16, AR292: 15, AR248: 15, AR265: 15, AR299: 14, AR247: 14, AR253: 14, AR268: 13, AR240: 13, AR295: 13, AR198: 13, AR269: 13, AR183: 13, AR175: 12, AR039: 12, AR182: 12, AR283: 12, AR206: 12, AR293: 11, AR285: 11, AR291: 11,	14q11.2	182600, 186880, 190195, 190195, 222700, 600243, 602279, 602279

									AR263: 11, AR194: 11, AR267: 11, AR251: 11, AR204: 11, AR290: 11, AR266: 11, AR055: 11, AR241: 10, AR294: 10, AR284: 10, AR300: 10, AR277: 10, AR316: 9, AR296: 9, AR202: 9, AR061: 9, AR184: 9, AR258: 9, AR256: 8, AR298: 8, AR089: 8, AR289: 8, AR060: 8, AR280: 7, AR314: 7, AR315: 7, AR286: 7, AR179: 7, AR177: 6, AR259: 6, AR231: 6, AR238: 5, AR232: 5, AR237: 5, AR229: 5, AR226: 5, AR234: 5, AR233: 3, AR227: 3, AR281: 2 H0052: 2, L0439: 2, S0300: 1, H0549: 1, S0222: 1, S0010: 1, H0178: 1, S0051: 1, T0010: 1, S0038: 1, L0351: 1, L0769: 1, L0761: 1, L0803: 1, H0539: 1 and H0696: 1.					
336	HCE1Y34	809084	346	757 - 783	2943				H0052: 1 and H0416: 1.					
337	HCE2B57	737997	347	279 - 308	2944				H0052: 1 and H0124: 1.					
338	HCE2E47	886155	348	102 - 191	2945				H0013: 2, S0222: 1, H0052: 1, H0488: 1 and H0521: 1.					
339	HCE2I23	571038	349	56 - 328	2946	Asp-3 to Ser-11, Ser-14 to Ser-21, Pro-23 to Glu-37, Ser-85 to Asn-90.			H0362: 2, H0052: 1, L0666: 1, H0696: 1 and L0750: 1.					
340	HCE2P90	737935	350	142 - 270	2947	Thr-31 to Pro-40.			H0052: 1					
341	HCE3A54	603435	351	51 - 179	2948				S0007: 1, H0052: 1 and L0805: 1.					
342	HCE3C46	737889	352	290 - 310	2949				H0052: 1, S0386: 1 and					

343	HCE3D58	873227	353	682 - 882	2950	His-56 to Ser-64.	H0422: 1. H0052: 19, L0741: 10, L0439: 7, L0438: 4, L0742: 4, S0036: 3, L0415: 2, S0222: 2, H0194: 2, H0399: 2, L0776: 2, S0001: 1, S0282: 1, H0261: 1, H0574: 1, H0632: 1, H0156: 1, S0010: 1, H0374: 1, S0049: 1, H0009: 1, S0050: 1, T0010: 1, L0483: 1, L0456: 1, S0386: 1, H0633: 1, L0635: 1, S0380: 1, L0745: 1 and L0366: 1.		
344	HCE3D89	648612	354	73 - 336	2951	Gln-6 to Leu-12, Pro-55 to Gly-63.	AR060: 5, AR316: 3, AR089: 2 S0222: 5, L0742: 5, L0769: 3, S0007: 2, H0052: 2, L0794: 2, H0156: 1, H0194: 1, S0388: 1, S0038: 1, L0502: 1, L0791: 1, L0792: 1, L0439: 1, L0779: 1 and L0758: 1.	20q13.3	118504, 118504, 131242, 602235
345	HCE3I43	766758	355	1075 - 1143	2952		S0222: 7, L0776: 7, L0740: 6, H0013: 5, L0751: 5, L0756: 5, L0741: 4, L0748: 4, S0010: 3, L0769: 3, L0438: 3, L0749: 3, L0759: 3, L0592: 3, H0052: 2, H0046: 2, L0471: 2, S0051: 2, L0770: 2, L0764: 2, L0662: 2, L0783: 2, H0144: 2, H0593: 2, L0777: 2, L0587: 2, L0608: 2, L0362: 2, H0713: 1, H0717: 1, S0116: 1, H0341: 1, S0001: 1, H0661: 1, H0664: 1, S0356: 1, S0442: 1, S0376: 1, S0360: 1, S0408: 1, H0229: 1, S0045: 1, S0300: 1, L0717: 1, S6016: 1, H0270: 1, H0427: 1, T0082: 1, H0590: 1, H0618: 1, H0390: 1, H0150: 1, L0157: 1, H0569: 1, H0050: 1, H0201: 1, H0594: 1, S0250: 1, H0428: 1, T0023:	20q13.11-13.2	102700, 102700, 118504, 118504, 131242, 139320, 139320, 139320, 139320, 602025

346	HCE3L04	845973	356	221 - 361	2953					1, H0644: 1, H0617: 1, S0036: 1, H0038: 1, H0087: 1, H0077: 1, H0272: 1, H0056: 1, H0100: 1, L0370: 1, L4557: 1, L0796: 1, L0372: 1, L0765: 1, L0773: 1, L0794: 1, L0649: 1, L0775: 1, L0806: 1, L0653: 1, L0655: 1, L0659: 1, L0635: 1, L0664: 1, H0520: 1, H0658: 1, H0648: 1, H0672: 1, S0406: 1, S3014: 1, L0744: 1, L0747: 1, L0780: 1, L0752: 1, L0753: 1, L0757: 1, L0758: 1, L0601: 1 and S0276: 1.			
347	HCE3N23	810211	357	789 - 944	2954					H0052: 1 and S0366: 1. AR089: 13, AR316: 11, AR060: 9 H0052: 18, L0743: 9, L0439: 9, L0742: 7, S0007: 6, S0222: 6, L0779: 6, L0809: 5, L0157: 4, L0769: 4, S0049: 3, L0518: 3, H0144: 3, L0741: 3, L0744: 3, L0777: 3, S0045: 2, L0717: 2, H0261: 2, H0455: 2, H0438: 2, H0333: 2, S0010: 2, H0194: 2, H0123: 2, H0201: 2, L0455: 2, H0135: 2, L0662: 2, L0776: 2, L0438: 2, L0740: 2, L0747: 2, L0786: 2, L0758: 2, L0592: 2, H0667: 2, L0441: 1, H0685: 1, S0282: 1, S0029: 1, S0420: 1, L0005: 1, S0046: 1, S0300: 1, H0441: 1, H0392: 1, H0013: 1, H0244: 1, T0082: 1, S0346: 1, H0434: 1, H0545: 1, H0009: 1, H0178: 1, H0050: 1, S0051: 1, S6028: 1, H0328: 1, H0628: 1, H0038: 1, S0038: 1, T0041: 1, H0509: 1, L0770: 1, L0638: 1, L0658: 1, L0368: 1, S0126: 1.	19q13.1	164731, 172400, 172400, 180901, 180901, 221770, 248600, 600918, 602716	

348	HCE3R01	834836	358	1386 - 1586	2955			1, H0684: 1, H0651: 1, S0206: 1, L0751: 1, L0750: 1, S0031: 1, S0260: 1, H0445: 1, L0589: 1, L0594: 1, L0366: 1, S0192: 1 and S0194: 1. L0595: 7, H0052: 5, L0439: 4, L0740: 4, L0754: 4, L0758: 4, L0766: 3, H0626: 3, H0556: 2, S0114: 2, L0717: 2, H0013: 2, H0561: 2, H0529: 2, L0770: 2, L0764: 2, L0768: 2, L0438: 2, L0747: 2, L0759: 2, L0362: 2, H0624: 1, H0484: 1, S0418: 1, S0376: 1, S0444: 1, S0045: 1, H0411: 1, L0623: 1, H0156: 1, H0599: 1, H0618: 1, S0346: 1, H0318: 1, H0421: 1, H0310: 1, H0263: 1, L0579: 1, S6028: 1, H0188: 1, S0250: 1, H0428: 1, H0553: 1, H0040: 1, H0616: 1, H0551: 1, H0100: 1, H0538: 1, L0769: 1, L0794: 1, L0774: 1, L0653: 1, L0776: 1, L0655: 1, L0658: 1, L0783: 1, L0663: 1, H0520: 1, H0547: 1, H0519: 1, H0522: 1, H0555: 1, S0027: 1, L0743: 1, L0748: 1, H0445: 1, L0596: 1 and H0665: 1.	Xq21	305450, 309600, 309605, 311360, 314580
349	HCE3R01	841472	359	1386 - 1586	2956			L0595: 7, H0052: 5, L0439: 4, L0740: 4, L0754: 4, L0758: 4, L0766: 3, H0626: 3, H0556: 2, S0114: 2, L0717: 2, H0013: 2, H0561: 2, H0529: 2, L0770: 2, L0764: 2, L0768: 2, L0438: 2, L0747: 2, L0759: 2, L0362: 2, H0624: 1, H0484: 1, S0418: 1, S0376: 1, S0444: 1, S0045: 1, H0411: 1, L0623: 1, H0156: 1, H0599: 1, H0618: 1, S0346: 1, H0318: 1, H0421: 1, H0310: 1.	Xq21	305450, 309600, 309605, 311360, 314580

350	HCE3R01	844574	360	1386 - 1586	2957			1, H0263: 1, L0579: 1, S6028: 1, H0188: 1, S0250: 1, H0428: 1, H0553: 1, H0040: 1, H0616: 1, H0551: 1, H0100: 1, H0538: 1, L0769: 1, L0794: 1, L0774: 1, L0653: 1, L0776: 1, L0655: 1, L0658: 1, L0783: 1, L0663: 1, H0520: 1, H0547: 1, H0519: 1, H0522: 1, H0555: 1, S0027: 1, L0743: 1, L0748: 1, H0445: 1, L0596: 1 and H0665: 1. L0595: 7, H0052: 5, L0439: 4, L0740: 4, L0754: 4, L0758: 4, L0766: 3, H0626: 3, H0556: 2, S0114: 2, L0717: 2, H0013: 2, H0561: 2, H0529: 2, L0770: 2, L0764: 2, L0768: 2, L0438: 2, L0747: 2, L0759: 2, L0362: 2, H0624: 1, H0484: 1, S0418: 1, S0376: 1, S0444: 1, S0045: 1, H0411: 1, L0623: 1, H0156: 1, H0599: 1, H0618: 1, S0346: 1, H0318: 1, H0421: 1, H0310: 1, H0263: 1, L0579: 1, S6028: 1, H0188: 1, S0250: 1, H0428: 1, H0553: 1, H0040: 1, H0616: 1, H0551: 1, H0100: 1, H0538: 1, L0769: 1, L0794: 1, L0774: 1, L0653: 1, L0776: 1, L0655: 1, L0658: 1, L0783: 1, L0663: 1, H0520: 1, H0547: 1, H0519: 1, H0522: 1, H0555: 1, S0027: 1, L0743: 1, L0748: 1, H0445: 1, L0596: 1 and H0665: 1. L0439: 23, H0521: 14, H0494: 12, H0599: 11, H0038: 8, S0002: 8, L0655: 8, S0374: 8, S0404: 8, L0769: 7, L0775: 7, L0659: 7, L0749: 7, H0543: 7, L0471: 6, H0373: 6, S0440: 6.	Xq21	305450, 309600, 309605, 311360, 314580
351	HCE3R46	844450	361	376 - 444	2958			L0439: 23, H0521: 14, H0494: 12, H0599: 11, H0038: 8, S0002: 8, L0655: 8, S0374: 8, S0404: 8, L0769: 7, L0775: 7, L0659: 7, L0749: 7, H0543: 7, L0471: 6, H0373: 6, S0440: 6.	10	

[illegible]

[illegible]

352	HCE4H32	843941	362	1403 - 1585	2959			1, L0807: 1, L0527: 1, L0657: 1, L0382: 1, L0792: 1, H0701: 1, S0148: 1, H0693: 1, H0724: 1, L0352: 1, H0689: 1, H0684: 1, S0328: 1, S0380: 1, H0518: 1, H0522: 1, H0696: 1, H0134: 1, H0631: 1, S0028: 1, S0206: 1, L0743: 1, L0756: 1, S0031: 1, L0599: 1, H0668: 1, H0665: 1, H0667: 1, S0192: 1, S0424: 1, S0462: 1, S0460: 1 and H0506: 1.		
								L0748: 9, L0747: 8, L0759: 7, L0766: 6, L0776: 6, L0665: 5, L0749: 5, H0550: 4, H0052: 4, H0046: 4, L0771: 4, L0775: 4, L0777: 4, L0731: 4, S0049: 3, H0424: 3, L0803: 3, L0663: 3, H0144: 3, L0750: 3, H0556: 2, T0010: 2, H0412: 2, L0646: 2, L0764: 2, L0741: 2, L0366: 2, S0040: 1, S0358: 1, S0360: 1, H0637: 1, H0645: 1, L0717: 1, S0220: 1, H0431: 1, H0392: 1, H0333: 1, H0632: 1, H0013: 1, H0599: 1, H0098: 1, H0618: 1, S0010: 1, H0007: 1, H0184: 1, H0596: 1, H0545: 1, H0050: 1, H0015: 1, S0362: 1, S0388: 1, H0099: 1, H0688: 1, H0428: 1, H0039: 1, T0006: 1, H0617: 1, H0032: 1, L0455: 1, H0591: 1, H0040: 1, H0063: 1, L0564: 1, S0015: 1, S0142: 1, L0763: 1, L0770: 1, L0761: 1, L0800: 1, L0643: 1, L0794: 1, L0804: 1, L0375: 1, L0376: 1, L0378: 1, L0805: 1, L0607: 1, L0512: 1, L0809: 1, L0788: 1, L0532: 1, L0666: 1, L0438: 1, H0593: 1.	13	

353	HCE4H32	874256	363	814 - 996	2960	<p>1, S0126: 1, H0684: 1, H0660: 1, H0539: 1, S0152: 1, H0436: 1, L0742: 1, L0740: 1, L0752: 1, L0755: 1, L0757: 1, H0445: 1, L0596: 1, L0592: 1, L0608: 1, S0026: 1, S0194: 1 and H0543: 1.</p> <p>L0748: 9, L0747: 8, L0759: 7, L0766: 6, L0776: 6, L0665: 5, L0749: 5, H0550: 4, H0052: 4, H0046: 4, L0771: 4, L0775: 4, L0777: 4, L0731: 4, S0049: 3, H0424: 3, L0803: 3, L0663: 3, H0144: 3, L0750: 3, H0556: 2, T0010: 2, H0412: 2, L0646: 2, L0764: 2, L0741: 2, L0366: 2, S0040: 1, S0358: 1, S0360: 1, H0637: 1, H0645: 1, L0717: 1, S0220: 1, H0431: 1, H0392: 1, H0333: 1, H0632: 1, H0013: 1, H0599: 1, H0098: 1, H0618: 1, S0010: 1, H0007: 1, H0184: 1, H0596: 1, H0545: 1, H0050: 1, H0015: 1, S0362: 1, S0388: 1, H0099: 1, H0688: 1, H0428: 1, H0039: 1, T0006: 1, H0617: 1, H0032: 1, L0455: 1, H0591: 1, H0040: 1, H0063: 1, L0564: 1, S0015: 1, S0142: 1, L0763: 1, L0770: 1, L0761: 1, L0800: 1, L0643: 1, L0794: 1, L0804: 1, L0375: 1, L0376: 1, L0378: 1, L0805: 1, L0607: 1, L0512: 1, L0809: 1, L0788: 1, L0532: 1, L0666: 1, L0438: 1, H0593: 1, S0126: 1, H0684: 1, H0660: 1, H0539: 1, S0152: 1, H0436: 1, L0742: 1, L0740: 1, L0752: 1, L0755: 1, L0757: 1, H0445: 1, L0596: 1, L0592: 1, L0608: 1.</p>	13	
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354	HCE4T64	566797	364	91 - 321	2961	His-4 to Thr-9, Ala-31 to Pro-36.	1, S0026: 1, S0194: 1 and H0543: 1. L0758: 8, L0748: 7, L0764: 5, L0754: 5, L0747: 5, L0779: 4, H0150: 3, L0757: 3, H0052: 2, H0009: 2, L0771: 2, L0768: 2, L0766: 2, L0774: 2, L0775: 2, L0596: 2, L0599: 2, H0171: 1, L0615: 1, H0265: 1, H0657: 1, S0116: 1, S0420: 1, S0408: 1, L0622: 1, L0015: 1, H0156: 1, T0082: 1, H0618: 1, H0204: 1, H0327: 1, H0544: 1, H0457: 1, H0172: 1, H0687: 1, H0040: 1, H0063: 1, L0351: 1, T0041: 1, H0280: 1, H0625: 1, L0369: 1, L0763: 1, L0638: 1, L0646: 1, L0648: 1, L0806: 1, L0657: 1, L0659: 1, L0809: 1, H0547: 1, H0658: 1, H0670: 1, H0539: 1, H0521: 1, H0576: 1, L0439: 1, L0786: 1, L0777: 1, L0752: 1, L0753: 1, L0755: 1, L0731: 1, S0434: 1, L0604: 1, S0424: 1 and H0506: 1.			
355	HCE4W88	792953	365	286 - 384	2962	Ser-21 to Trp-32.	AR089: 15, AR316: 11, AR060: 7 L0601: 17, L0747: 11, H0255: 10, L0766: 10, L0659: 9, H0521: 9, L0439: 9, H0457: 8, L0750: 8, H0543: 8, H0052: 7, L0665: 7, L0731: 7, L0757: 7, L0662: 6, L0751: 6, H0012: 5, H0617: 5, L0763: 5, L0666: 5, L0740: 5, H0445: 5, H0656: 4, S0418: 4, S0360: 4, H0580: 4, H0549: 4, H0550: 4, H0050: 4, H0620: 4, H0551: 4, H0494: 4, L0646: 4, L0775: 4, L0663: 4, H0547: 4, H0660: 4, H0555: 114290, 138033, 162100, 170500, 170500, 170500, 180860, 264470		17q25	

00050082 091201

[illegible]

								1, H0100: 1, T0041: 1, H0279: 1, H0334: 1, H0625: 1, H0561: 1, S0142: 1, S0422: 1, S0002: 1, S0426: 1, L0796: 1, L0639: 1, L0667: 1, L0800: 1, L0643: 1, L0773: 1, L0363: 1, L0803: 1, L0375: 1, L0654: 1, L0776: 1, L0657: 1, L0658: 1, L0382: 1, L0352: 1, H0519: 1, H0593: 1, H0435: 1, H0659: 1, H0648: 1, H0672: 1, S0328: 1, S0330: 1, H0539: 1, H0696: 1, S0044: 1, H0436: 1, S0028: 1, L0777: 1, H0668: 1, H0653: 1, S0196: 1, S0424: 1, S0458: 1 and L0600: 1.			
356	HCE5B62	566864	366	204 - 293	2963			H0052: 1			
357	HCE5H86	847032	367	288 - 482	2964	Leu-30 to Gly-35.		AR089: 17, AR316: 15, AR060: 12 H0617: 7, L0750: 7, H0556: 5, L0769: 5, L0783: 5, L0758: 5, L0759: 5, L0665: 4, L0741: 4, S0132: 3, L0761: 3, L0742: 3, L0439: 3, L0755: 3, L0592: 3, H0618: 2, H0620: 2, H0038: 2, L0771: 2, L0662: 2, L0659: 2, L0666: 2, S0126: 2, H0670: 2, S0328: 2, S0380: 2, L0747: 2, L0753: 2, L0731: 2, H0395: 1, H0295: 1, H0294: 1, H0657: 1, H0656: 1, H0341: 1, H0484: 1, H0663: 1, H0638: 1, S0356: 1, S0444: 1, H0549: 1, H0550: 1, H0370: 1, H0455: 1, H0632: 1, H0486: 1, T0039: 1, T0112: 1, H0156: 1, H0581: 1, H0052: 1, H0545: 1, H0046: 1, H0150: 1, H0081: 1, S0051: 1, H0107: 1, H0061: 1, H0188: 1, H0288: 1, S0250: 1, H0428: 1, H0135: 1	2p12	147200, 178640, 216900	

								1, H0163: 1, H0090: 1, H0616: 1, T0004: 1, S0438: 1, L0770: 1, L0796: 1, L0637: 1, L0772: 1, L0372: 1, L0646: 1, L0521: 1, L0768: 1, L0766: 1, L5574: 1, L0774: 1, L0775: 1, L0375: 1, L0806: 1, L0776: 1, L0657: 1, L0658: 1, L0540: 1, L0384: 1, L0809: 1, L0663: 1, L0438: 1, H0672: 1, S0188: 1, S0406: 1, H0436: 1, H0576: 1, S014: 1, L0748: 1, L0779: 1, L0757: 1 and H0506: 1.			
358	HCE5164	688883	368	114 - 233	2965			H0052: 1 and H0316: 1.			300047, 300136, 309470, 309545, 309610
359	HCEBF54	847033	369	197 - 586	2966	Pro-71 to Leu-83, Pro-119 to Ser-129.		AR060: 4, AR089: 4, AR251: 3, AR249: 3, AR316: 3, AR253: 3, AR274: 2, AR310: 2, AR291: 2, AR269: 2, AR175: 2, AR293: 2, AR273: 2, AR104: 2, AR182: 2, AR284: 2, AR313: 1, AR229: 1, AR267: 1, AR312: 1 L0794: 2, L0803: 2, L0655: 2, L0665: 2, H0684: 2, L0754: 2, L0747: 2, H0686: 1, L0470: 1, H0662: 1, H0125: 1, S0360: 1, L0021: 1, H0052: 1, H0085: 1, H0597: 1, H0009: 1, S0362: 1, H0644: 1, H0673: 1, L0060: 1, H0560: 1, L0638: 1, L0761: 1, L0373: 1, L0765: 1, L0774: 1, L0805: 1, L0809: 1, L0790: 1, L0666: 1, L0664: 1, H0689: 1, H0682: 1, H0660: 1, L0742: 1, L0748: 1, S0434: 1, L0592: 1, L0608: 1, L0601: 1, H0542: 1 and H0423: 1.	Xp11		
360	HCECO77	571044	370	124 - 324	2967	Pro-31 to Pro-37.		L0747: 15, L0748: 11, L0747: 15, L0748: 11,	20p13-p12.2	192340, 234200	

361	HCEDH42	821321	371	71 - 238	2968	Lys-36 to Glu-44.	H0052: 1 H0052: 1 and H0293: 1.	2q35	11800, 123660, 125660, 125660, 193500, 193500, 193500, 193500, 201460, 205100, 237300, 262000, 600266, 601277
362	HCEDH05	634525	372	67 - 207	2969		L0439: 6, L0777: 5, L0438: 2, L0747: 2, L0756: 2, H0351: 1, H0052: 1, L0663: 1, L0352:		

Figure 1 consists of 12 diagrams (a-l) illustrating the experimental setup and data collection for measuring the effect of temperature on the rate of polymerization. The diagrams are arranged vertically and show various components and measurements:

- (a) A diagram of a reaction vessel with a thermometer and a heating/cooling jacket. Labels include "Reaction vessel", "Thermometer", "Heating/cooling jacket", and "Temperature".
- (b) A diagram showing the reaction vessel and thermometer, with labels for "Reaction vessel", "Thermometer", and "Temperature".
- (c) A diagram showing the reaction vessel and thermometer, with labels for "Reaction vessel", "Thermometer", and "Temperature".
- (d) A diagram showing the reaction vessel and thermometer, with labels for "Reaction vessel", "Thermometer", and "Temperature".
- (e) A diagram showing the reaction vessel and thermometer, with labels for "Reaction vessel", "Thermometer", and "Temperature".
- (f) A diagram showing the reaction vessel and thermometer, with labels for "Reaction vessel", "Thermometer", and "Temperature".
- (g) A diagram showing the reaction vessel and thermometer, with labels for "Reaction vessel", "Thermometer", and "Temperature".
- (h) A diagram showing the reaction vessel and thermometer, with labels for "Reaction vessel", "Thermometer", and "Temperature".
- (i) A diagram showing the reaction vessel and thermometer, with labels for "Reaction vessel", "Thermometer", and "Temperature".
- (j) A diagram showing the reaction vessel and thermometer, with labels for "Reaction vessel", "Thermometer", and "Temperature".
- (k) A diagram showing the reaction vessel and thermometer, with labels for "Reaction vessel", "Thermometer", and "Temperature".
- (l) A diagram showing the reaction vessel and thermometer, with labels for "Reaction vessel", "Thermometer", and "Temperature".

363	HCEDJ26	840397	373	1004 - 1009	2970		1 and S0412: 1. L0439: 30, L0740: 12, L0438: 9, L0742: 9, L0758: 8, S0022: 6, L0779: 6, S0356: 5, L0771: 5, L0659: 5, S0360: 4, L0748: 4, L0592: 4, L0595: 4, S0242: 4, H0265: 3, S0007: 3, H0619: 3, S0003: 3, S0214: 3, H0031: 3, H0488: 3, L0766: 3, L0774: 3, L0805: 3, L0653: 3, S0126: 3, L0754: 3, L0759: 3, L0596: 3, L0005: 2, H0097: 2, H0599: 2, H0318: 2, H0421: 2, H0051: 2, S6028: 2, H0039: 2, L0142: 2, L0564: 2, L0770: 2, L0769: 2, L0764: 2, L0649: 2, L0776: 2, L0666: 2, L0663: 2, L0665: 2, H0144: 2, H0658: 2, H0648: 2, S0152: 2, H0522: 2, L0756: 2, L0777: 2, L0752: 2, S0260: 2, L0485: 2, L0593: 2, H0556: 1, S0134: 1, S0116: 1, S0282: 1, H0662: 1, S0418: 1, S0420: 1, S0354: 1, S0358: 1, L0149: 1, S0045: 1, S0140: 1, H0351: 1, H0550: 1, H0586: 1, H0587: 1, H0574: 1, H0486: 1, H0013: 1, H0244: 1, H0427: 1, H0042: 1, H0575: 1, H0590: 1, S0010: 1, S0474: 1, S0049: 1, H0052: 1, H0194: 1, H0309: 1, H0597: 1, H0545: 1, H0046: 1, L0157: 1, S0362: 1, S0388: 1, S0051: 1, H0355: 1, H0266: 1, H0615: 1, H0622: 1, L0055: 1, H0032: 1, H0169: 1, H0598: 1, S0036: 1, H0591: 1, H0038: 1, H0616: 1, H0087: 1, H0272: 1, S0038: 1, H0494: 1, H0561: 1, S0210: 1, H0529: 1, L0762: 1,	
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									L0637: 1, L0772: 1, L0372: 1, L0644: 1, L0521: 1, L0803: 1, L0775: 1, L0376: 1, L0657: 1, L0515: 1, L0526: 1, L0788: 1, H0682: 1, H0435: 1, H0539: 1, S0380: 1, H0521: 1, S0392: 1, H0478: 1, L0751: 1, S0031: 1, L0599: 1, L0594: 1, L0601: 1, L0603: 1, L0366: 1, S0026: 1, S0192: 1, S0196: 1, H0543: 1, H0423: 1 and H0506: 1.				
364	HCEDN07	847034	374	126 - 248	2971	Ser-15 to Asp-22, Leu-26 to Ala-33.			L0748: 3, H0170: 1, H0575: 1, H0052: 1, H0039: 1 and L0793: 1.				
365	HCEDO17	824312	375	608 - 712	2972				AR060: 5, AR316: 5, AR089: 4 L0438: 6, L0439: 6, L0754: 5, H0422: 2, H0638: 1, H0600: 1, H0581: 1, H0434: 1, H0052: 1, S0051: 1, T0010: 1, L0055: 1, H0032: 1, S0386: 1, L0520: 1, L0770: 1, L0521: 1, L0803: 1, L0375: 1, L0518: 1, L0793: 1, L0666: 1, L0665: 1, H0547: 1, H0683: 1, H0522: 1, H0436: 1, L0741: 1, L0751: 1, L0777: 1, L0686: 1 and L0608: 1.	21q22.2		176261, 601399	
366	HCEEG48	896688	376	242 - 307	2973				AR089: 32, AR316: 24, AR060: 16 H0052: 2, H0261: 1, H0257: 1, L0657: 1, L0790: 1 and L0777: 1.				
367	HCEEM33	821322	377	244 - 351	2974				L0439: 5, L0779: 2, L0777: 2, L0759: 2, H0156: 1, S0010: 1, S0049: 1, H0052: 1, H0328: 1, L0794: 1, L0804: 1, H0144: 1, L0438: 1, L0352: 1, L0758: 1, L0589: 1 and S0412: 1.	13q13		157900, 600631	
368	HCEEP16	668234	378	276 - 281	2975				AR060: 4, AR316: 3,				

369	HCEER60	826016	379	18 - 104	2976			AR089: 2 H0052: 1, H0591: 1, H0132: 1, H0131: 1, S0422: 1, H0659: 1, L0779: 1 and L0780: 1.			
370	HCEFA10	603966	380	282 - 296	2977			H0599: 2, L0439: 2, H0052: 1, L0639: 1, L0792: 1 and S0328: 1.			
371	HCEFA50	695707	381	223 - 228	2978			L0517: 2, S0114: 1, H0656: 1, S0474: 1, H0052: 1, H0179: 1, H0416: 1, H0169: 1, H0538: 1 and L0758: 1.			
372	HCEFA94	822850	382	232 - 285	2979			H0052: 1			
373	HCEFC27	637531	383	224 - 340	2980		Thr-33 to Trp-38.	AR060: 7, AR316: 5, AR089: 2 S0003: 27, L0766: 7, L0438: 5, L0745: 5, S0214: 3, L0439: 3, L0754: 3, L0731: 3, H0635: 2, L0803: 2, L0776: 2, H0144: 2, H0519: 2, L0746: 2, L0756: 2, L0759: 2, L0592: 2, S0400: 1, H0663: 1, S0356: 1, S0222: 1, H0431: 1, H0442: 1, H0574: 1, H0013: 1, H0098: 1, H0036: 1, H0318: 1, H0052: 1, H0563: 1, H0014: 1, H0510: 1, S0628: 1, H0031: 1, H0553: 1, H0644: 1, H0032: 1, S0036: 1, H0591: 1, H0634: 1, T0041: 1, S0382: 1, L0761: 1, L0794: 1, L0774: 1, L0775: 1, L0607: 1, L0659: 1, L0666: 1, H0701: 1, H0520: 1, S0122: 1, H0435: 1, H0659: 1, H0518: 1, S0152: 1, H0555: 1, L0752: 1, L0684: 1, S0026: 1, H0543: 1 and H0422: 1.	7p21.3-pl5.1		123100, 153880, 180104, 601649
374	HCEFG93	745400	384	166 - 207	2981			AR089: 18, AR316: 13, AR060: 8 H0052: 1			

375	HCEFH31	801890	385	260 - 439	2982	Pro-6 to Gln-11, Pro-32 to Arg-37, His-41 to Trp-46, Pro-49 to Gly-54.	H0545: 30, H0673: 13, S0436: 12, H0544: 11, L0731: 8, S0356: 5, H0546: 5, H0424: 5, L0651: 5, L0794: 4, L0659: 4, H0124: 3, L0771: 3, L0662: 3, L0518: 3, L0809: 3, L0666: 3, L0747: 3, H0717: 2, H0661: 2, S0360: 2, H0550: 2, H0156: 2, H0052: 2, H0086: 2, H0024: 2, L0533: 2, L0803: 2, L0804: 2, L0663: 2, H0696: 2, L0751: 2, H0713: 1, H0662: 1, H0402: 1, T0008: 1, H0619: 1, H0369: 1, H0549: 1, H0392: 1, H0587: 1, H0331: 1, T0039: 1, H0042: 1, H0581: 1, H0050: 1, H0328: 1, H0039: 1, H0622: 1, H0553: 1, H0032: 1, H0165: 1, H0166: 1, H0169: 1, H0135: 1, S0464: 1, S0438: 1, H0647: 1, L0763: 1, L0639: 1, L5566: 1, L0761: 1, L0644: 1, L0648: 1, L0375: 1, L0526: 1, L0782: 1, L0384: 1, L0647: 1, L0367: 1, L0790: 1, L0791: 1, L0438: 1, H0684: 1, H0660: 1, S0328: 1, H0539: 1, H0521: 1, H0345: 1, S014: 1, L0748: 1, L0780: 1, L0757: 1, L0759: 1, S0192: 1 and H0352: 1.		
376	HCEFK56	872554	386	79 - 2091	2983	Lys-21 to Lys-26, Glu-31 to Gly-38, Leu-184 to Ile-191, Gln-193 to Asp-206, Pro-278 to Leu-286, Gln-305 to Pro-319, Ala-380 to Glu-397, Arg-403 to Thr-412, Leu-423 to Thr-441, Thr-590 to Lys-595,	H0052: 11, H0617: 11, L0741: 9, L0747: 8, H0618: 7, L0439: 7, H0305: 6, L0438: 6, L0659: 5, S0040: 4, S0358: 4, S0222: 4, H0599: 4, H0046: 4, H0050: 4, T0010: 4, L0769: 4, L0662: 4, L0766: 4, L0774: 4, L0753: 4, L0759: 4, L0005: 3, H0370: 3, H0253: 3, H0181: 3, H0038: 3, H0616: 3, S0038: 3,	2p13	203800, 602404

							Thr-602 to Gly-608, Ala-626 to Asp-633.	L0351: 3, L0794: 3, L0775: 3, L0666: 3, L0663: 3, L0744: 3, L0740: 3, L0779: 3, L0777: 3, L0731: 3, L0757: 3, L0758: 3, L0366: 3, H0255: 2, H0662: 2, S0418: 2, S0420: 2, S0049: 2, H0327: 2, H0428: 2, S0036: 2, H0135: 2, H0040: 2, H0488: 2, H0100: 2, H0494: 2, L0598: 2, L0762: 2, L0770: 2, L0638: 2, L0372: 2, L0767: 2, L0809: 2, L0664: 2, H0658: 2, L0748: 2, L0755: 2, L0596: 2, L0588: 2, H0136: 2, S0276: 2, H0542: 2, H0265: 1, H0556: 1, T0002: 1, H0295: 1, H0650: 1, S0212: 1, S0282: 1, H0589: 1, S0356: 1, S0354: 1, S0360: 1, H0580: 1, S0046: 1, H0393: 1, L0717: 1, H0411: 1, H0438: 1, H0586: 1, H0587: 1, H0485: 1, H0427: 1, H0156: 1, H0122: 1, S0010: 1, H0194: 1, H0597: 1, H0051: 1, S0388: 1, S0051: 1, H0355: 1, H0266: 1, H0688: 1, T0006: 1, H0606: 1, H0674: 1, L0456: 1, H0124: 1, H0068: 1, S0366: 1, T0004: 1, L0564: 1, H0560: 1, L0065: 1, S0150: 1, H0538: 1, L0371: 1, L0637: 1, L0772: 1, L0800: 1, L0641: 1, L0764: 1, L0648: 1, L0521: 1, L0768: 1, L0803: 1, L0375: 1, L0378: 1, L0657: 1, L0658: 1, L0517: 1, L0783: 1, L0519: 1, L0647: 1, L0787: 1, L0790: 1, L0665: 1, H0520: 1, H0519: 1, S0126: 1, H0690: 1, H0435: 1, H0659: 1, S0044: 1, H0134: 1, H0436: 1, S0037: 1, L0743: 1, L0751: 1,						
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377	HCEFN51	839253	387	113 - 250	2984	Lys-31 to Asn-39.	L0754: 1, L0745: 1, L0752: 1, S0031: 1, S0260: 1, S0394: 1, L0584: 1, L0599: 1, L0601: 1, S0192: 1, S0194: 1, H0543: 1, H0423: 1, H0506: 1 and H0352: 1. L0754: 19, L0439: 12, L0752: 9, L0596: 9, L0759: 6, H0013: 5, H0090: 5, L0662: 5, L0766: 5, H0682: 5, H0436: 5, L0756: 5, L0483: 4, H0553: 4, H0591: 4, L0775: 4, L0362: 4, H0423: 4, H0556: 3, S0134: 3, L0005: 3, H0156: 3, L0776: 3, L0809: 3, H0435: 3, H0659: 3, S0028: 3, L0747: 3, L0777: 3, H0543: 3, T0002: 2, S0114: 2, S0001: 2, S0358: 2, S0476: 2, S0222: 2, S0010: 2, H0318: 2, H0373: 2, L0163: 2, H0266: 2, H0615: 2, T0006: 2, L0143: 2, H0560: 2, S0210: 2, L0761: 2, L0771: 2, L0774: 2, L0805: 2, L0527: 2, L0659: 2, L0788: 2, H0144: 2, L0565: 2, H0520: 2, H0547: 2, L0755: 2, H0542: 2, H0265: 1, T0049: 1, H0650: 1, H0657: 1, H0656: 1, S0116: 1, H0341: 1, H0305: 1, S0442: 1, S0444: 1, S0360: 1, H0580: 1, H0208: 1, S0046: 1, S6026: 1, H0635: 1, H0599: 1, H0147: 1, S0346: 1, S0049: 1, H0052: 1, H0085: 1, H0263: 1, H0596: 1, L0040: 1, H0544: 1, L0157: 1, H0564: 1, H0569: 1, H0050: 1, L0471: 1, H0014: 1, S0051: 1, H0375: 1, S6028: 1, S0250: 1, H0428: 1, H0644: 1, H0598: 1, H0040: 1, H0634: 1, H0494: 1,		
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378	HCEGG08	844506	388	1114 - 1197	2985				H0561: 1, S0440: 1, S0150: 1, H0130: 1, L0625: 1, L0770: 1, L0373: 1, L0646: 1, L0764: 1, L0773: 1, L0767: 1, L0364: 1, L0803: 1, L0650: 1, L0375: 1, L0657: 1, L0526: 1, L0529: 1, L0647: 1, L0790: 1, L0793: 1, L0666: 1, L0664: 1, L0665: 1, S0053: 1, H0701: 1, L0352: 1, H0593: 1, H0689: 1, H0711: 1, H0658: 1, H0648: 1, H0672: 1, S0330: 1, S0152: 1, H0579: 1, S0013: 1, S0146: 1, H0576: 1, S0390: 1, S0027: 1, L0744: 1, L0746: 1, L0779: 1, L0731: 1, S0260: 1, S0434: 1, S0011: 1, S0276: 1 and H0422: 1. AR060: 5, AR316: 4, AR089: 4 L0439: 15, H0052: 11, S0007: 9, L0438: 6, L0731: 6, L0779: 5, L0754: 4, H0550: 3, L0769: 3, S0126: 3, L0743: 3, H0194: 2, H0687: 2, H0623: 2, L0768: 2, L0776: 2, L0659: 2, L0666: 2, L0663: 2, H0689: 2, S0330: 2, L0748: 2, L0786: 2, L0777: 2, L0752: 2, L0758: 2, L0608: 2, H0352: 2, H0662: 1, S0356: 1, S0354: 1, S0444: 1, S0045: 1, S0476: 1, H0441: 1, H0431: 1, H0333: 1, H0642: 1, H0575: 1, H0590: 1, T0048: 1, H0150: 1, H0024: 1, S0050: 1, S0388: 1, H0252: 1, H0039: 1, H0135: 1, H0038: 1, H0264: 1, H0059: 1, H0494: 1, L0770: 1, L0372: 1, L0646: 1, L0521: 1, L0794: 1, L0803: 1, L0775: 1, L0653: 1, L0657: 1, L0809: 1,	
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379	HCEGH74	847036	389	203 - 373	2986	Gly-31 to Gly-46.	L0792: 1, L0664: 1, H0144: 1, L0352: 1, H0519: 1, H0593: 1, H0658: 1, H0672: 1, H0539: 1, S0406: 1, L0751: 1, L0749: 1, L0756: 1, L0753: 1 and H0506: 1. L0439: 4, H0052: 3, L0747: 3, H0529: 2, H0547: 2, L0748: 2, L0759: 2, H0423: 2, H0254: 1, H0369: 1, H0392: 1, H0575: 1, H0457: 1, H0009: 1, H0081: 1, S0051: 1, T0010: 1, H0553: 1, H0708: 1, S0036: 1, H0100: 1, L0769: 1, L0637: 1, L0761: 1, L0375: 1, L0659: 1, H0520: 1, S0028: 1, L0743: 1, L0749: 1, L0750: 1, L0753: 1, L0755: 1, L0758: 1 and H0352: 1.	17q24	115660, 139250, 148500, 150200, 154275, 162100, 170500, 170500, 170500, 182452, 230200, 249000, 253250
380	HCEGK81	844452	390	72 - 254	2987		H0052: 2, L0769: 2, L0759: 2, H0265: 1, H0331: 1, H0545: 1, H0031: 1, H0553: 1, L0369: 1, L0764: 1 and H0435: 1.		
381	HCEGS49	846298	391	145 - 330	2988		H0052: 3, S0280: 1, H0328: 1, H0615: 1 and H0674: 1.		
382	HCEGU75	658670	392	84 - 179	2989	Cys-3 to His-22.	L0758: 5, S0358: 4, L0439: 4, S0356: 3, L0751: 3, L0747: 3, L0779: 3, H0265: 2, H0381: 2, H0331: 2, H0052: 2, H0009: 2, L0157: 2, H0617: 2, L0769: 2, L0806: 2, L0783: 2, L0750: 2, S0436: 2, H0556: 1, H0685: 1, L0619: 1, L0005: 1, S0444: 1, H0619: 1, H0587: 1, H0566: 1, H0051: 1, H0083: 1, T0006: 1, L0055: 1, H0316: 1, H0135: 1, H0616: 1, H0551: 1, H0494: 1, L0372: 1, L0648: 1, L0768: 1, L0803: 1, L0379: 1, L0807: 1, L0659: 1, L0793: 1, L0665: 1, H0520: 1, H0547: 1, H0689: 1.	9q34.1	103000, 114350, 120900, 131195, 185000, 189980, 600184, 602575, 602575

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383	HCEGY33	753258	393	174 - 221	2990		1, H0539: 1, H0522: 1, H0696: 1, S3012: 1, S3014: 1, L0748: 1, L0777: 1, H0543: 1 and H0506: 1.		
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384	HCEHW24	560610	394	29 - 49	2991			AR237: 5, AR061: 5, AR184: 5, AR277: 5, AR206: 5, AR039: 5, AR205: 4, AR194: 4, AR060: 3, AR227: 3, AR202: 3, AR233: 3, AR204: 3, AR281: 2 H0581: 2, L0749: 2, L0779: 2, L0758: 2, H0341: 1, S0376: 1, S0046: 1, H0392: 1, H0590: 1, H0052: 1, L0376: 1, L0515: 1, L0791: 1, H0539: 1 and L0601: 1.		
385	HCEJL08	722208	395	175 - 624	2992	Trp-1114 to Thr-131.		L0439: 5, L0731: 3, L0769: 2, L0766: 2, L0649: 2, L0783: 2, L0519: 2, L0751: 2, L0757: 2, L0485: 2, H0265: 1, S0354: 1, S0358: 1, S0376: 1, S0046: 1, S0278: 1, H0549: 1, H0036: 1, H0052: 1, H0046: 1, H0009: 1, H0024: 1, H0039: 1, S0366: 1, H0135: 1, H0494: 1, H0647: 1, S0344: 1, H0538: 1, L0770: 1, L0772: 1, L0764: 1, L0775: 1, L0376: 1, L0542: 1, L0666: 1, H0702: 1, L0438: 1, H0520: 1, H0547: 1, H0593: 1, L0752: 1, L0758: 1 and H0352: 1.	Xq28	300031, 300044, 300048, 300049, 300049, 300055, 300100, 300100, 300104, 300126, 301201, 301590, 302060, 302060, 302060, 302060, 302960, 303700, 303800, 303900, 304800, 305900, 305900, 305900, 306700, 306995, 308310, 308840, 308840, 308840, 309200, 309548, 309620, 309900, 310300, 310400, 310460, 310460, 311300, 311510, 314300, 314400
386	HCEJP93	637533	396	20 - 91	2993	Lys-2 to Gln-7.		AR060: 6, AR316: 5, AR089: 4 L0747: 6, L0755: 4, L0759:		

387	HCELB04	847375	397	108 - 284	2994	Gly-42 to Ala-49.	<p>4, L0769: 3, L0771: 3, L0439: 3, L0777: 3, H0052: 2, H0266: 2, L0766: 2, L0375: 2, L0740: 2, L0749: 2, L0752: 2, L0589: 2, L0581: 2, H0423: 2, H0556: 1, H0458: 1, H0393: 1, H0549: 1, H0331: 1, H0581: 1, H0024: 1, H0014: 1, H0687: 1, H0028: 1, H0135: 1, T0067: 1, H0100: 1, L0770: 1, L0643: 1, L0764: 1, L0768: 1, L0794: 1, L0803: 1, L0774: 1, L0653: 1, L0809: 1, L0790: 1, L0791: 1, H0435: 1, H0658: 1, L0756: 1, L0786: 1 and S0196: 1.</p> <p>AR227: 282, AR229: 256, AR226: 235, AR104: 231, AR298: 214, AR061: 209, AR055: 204, AR233: 203, AR237: 200, AR185: 190, AR300: 186, AR186: 183, AR232: 173, AR060: 167, AR234: 164, AR179: 158, AR033: 143, AR182: 131, AR284: 129, AR192: 125, AR299: 124, AR314: 123, AR275: 119, AR267: 116, AR293: 112, AR175: 109, AR259: 107, AR316: 106, AR198: 105, AR294: 104, AR238: 104, AR231: 102, AR315: 99, AR289: 98, AR205: 98, AR204: 89, AR206: 88, AR286: 87, AR249: 87, AR248: 87, AR258: 86, AR184: 85, AR256: 84, AR243: 82, AR280: 79, AR285: 79, AR282: 77, AR052: 74, AR266: 73, AR219: 73,</p>	<p>14q11.2-14q21.3</p>	<p>182600, 186880, 190195, 190195, 222700, 232700, 600243, 602086, 602279, 602279</p>
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389	HCENN67	563013	399	56 - 217	2996				AR060: 6, AR316: 5, AR089: 3 L0439: 5, L0438: 2, S6024: 1, H0052: 1, H0009: 1, H0051: 1, H0424: 1, S0352: 1, L0794: 1, L0803: 1, L0790: 1 and S0106: 1.					
390	HCENQ22	740746	400	263 - 370	2997				AR089: 58, AR316: 46, AR060: 36 H0052: 3, L0355: 2, H0580: 1 and H0014: 1.					
391	HCEOF01	564906	401	242 - 358	2998				Met-1 to Gly-6.					
392	HCEOF01	850521	402	242 - 358	2999				Met-1 to Gly-6.					
393	HCEON94	564499	403	603 - 686	3000									

394	HCEOQ67	847376	404	18 - 116	3001	Met-1 to Leu-7.	<p>2, L0792: 2, L0743: 2, L0756: 2, H0542: 2, H0052: 1, S0002: 1, L0637: 1, L0768: 1, L0775: 1, L0663: 1, L0664: 1, L0665: 1, H0660: 1, L0749: 1, L0752: 1 and H0543: 1.</p> <p>H0641: 56, H0521: 47, L0769: 20, L0794: 20, L0747: 18, H0638: 17, H0522: 13, H0494: 11, H0620: 7, H0560: 7, L0768: 7, L0770: 6, H0519: 6, L0758: 6, L0759: 6, H0123: 5, H0087: 5, H0551: 5, H0100: 5, L0757: 5, H0624: 4, S0408: 4, S0045: 4, H0052: 4, H0327: 4, H0545: 4, H0135: 4, H0561: 4, H0529: 4, L0806: 4, L0653: 4, S0152: 4, L0731: 4, H0637: 3, S0007: 3, H0393: 3, H0024: 3, H0646: 3, L0807: 3, L0659: 3, L0663: 3, H0435: 3, L0750: 3, H0352: 3, H0170: 2, H0295: 2, H0341: 2, S0212: 2, H0662: 2, S0420: 2, H0645: 2, H0550: 2, H0333: 2, H0559: 2, H0486: 2, S0280: 2, H0594: 2, H0266: 2, H0288: 2, H0428: 2, H0039: 2, H0124: 2, H0316: 2, S0036: 2, H0488: 2, H0412: 2, H0413: 2, H0623: 2, H0625: 2, L0667: 2, L0772: 2, L0646: 2, L0803: 2, L0655: 2, L0792: 2, H0593: 2, S014: 2, S0028: 2, L0749: 2, L0779: 2, L0601: 2, L0603: 2, S0424: 2, H0171: 1, H0556: 1, H0713: 1, H0717: 1, S6024: 1, H0294: 1, S0001: 1, S0282: 1, H0254: 1, H0255: 1, H0661: 1, L0534: 1, L0539: 1, S0046: 1, S0132: 1, L0717: 1, H0351: 1.</p>		
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395	HCEOV48	850681	405	1563 - 1742	3002	Ile-23 to Lys-33, Gly-46 to Thr-53.	AR060: 6, AR316: 5, AR089: 5 H0553: 8, L0754: 8, L0603: 8, L0794: 6, L0758: 6, L0809: 5, S0358: 4, L0769: 4, H0030: 3, L0755: 3, H0265: 2, H0556: 2, S0278: 2, H0549: 2, L0789: 2, L0438: 2, L0750: 2, H0722: 1, S0132: 1, H0550: 1, H0586: 1, H0486: 1, H0635: 1, L0022: 1, H0318: 1, H0310: 1, H0052: 1, H0150: 1, H0009: 1, H0622: 1, H0031: 1, H0040: 1, H0494: 1, H0641: 1, H0647: 1, L0643: 1, L0764: 1, L0649: 1, L0804: 1, L0659: 1, L0793: 1, L0747: 1, L0756: 1, S0260: 1, H0665: 1 and L0698: 1.				
396	HCEPC90	603920	406	232 - 354	3003		H0052: 1				
397	HCEPO08	637543	407	190 - 198	3004		H0616: 8, H0038: 4, H0556: 1 and L0698: 1.	3q29-qter			

398	HCEB03	812940	408	228 - 314	3005	Gly-23 to Gln-28.	3, L0766: 3, L0731: 3, H0265: 2, H0521: 2, H0522: 2, L0740: 2, L0589: 2, H0624: 1, S0360: 1, S0132: 1, H0645: 1, S0222: 1, H0497: 1, H0013: 1, S0010: 1, H0052: 1, H0194: 1, H0373: 1, S0214: 1, L0143: 1, H0628: 1, H0591: 1, H0551: 1, H0560: 1, S0150: 1, H0641: 1, L0649: 1, S0152: 1, H0576: 1, L0748: 1, L0754: 1, L0750: 1, L0777: 1, L0591: 1, S0026: 1, S0194: 1, H0543: 1 and H0008: 1.		
399	HCEB44	584776	409	223 - 249	3006		H0194: 1 and H0521: 1. AR168: 52, AR171: 49, AR170: 46, AR169: 30, AR225: 27, AR223: 26, AR210: 25, AR243: 23, AR219: 21, AR311: 19, AR215: 18, AR231: 17, AR264: 16, AR269: 16, AR214: 16, AR165: 16, AR195: 16, AR211: 16, AR312: 15, AR275: 15, AR218: 15, AR191: 15, AR164: 15, AR180: 15, AR166: 14, AR162: 14, AR200: 14, AR163: 14, AR161: 14, AR172: 14, AR196: 14, AR238: 13, AR268: 13, AR197: 13, AR089: 13, AR291: 13, AR181: 13, AR189: 12, AR250: 12, AR254: 12, AR240: 12, AR096: 11, AR290: 11, AR188: 11, AR183: 11, AR267: 11, AR253: 11, AR272: 11, AR270: 11, AR316: 11, AR263: 11, AR173: 11,	18q22	174810, 601567, 602080

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400	HCETE08	731957	410	227 - 289	3007			1, S0420: 1, S0444: 1, H0580: 1, S0468: 1, H0369: 1, H0586: 1, H0331: 1, H0194: 1, S0214: 1, H0688: 1, H0628: 1, L0598: 1, H0651: 1, S0380: 1, H0478: 1, L0742: 1, L0743: 1, L0777: 1 and S0242: 1.		
401	HCETL19	702090	411	114 - 236	3008	Pro-16 to His-22.		L0439: 6, S0007: 3, L0742: 3, H0052: 2, H0150: 2, H0261: 1, H0013: 1, S0010: 1, L0024: 1, S0049: 1, H0194: 1, S6028: 1, L0794: 1, L0659: 1 and H0658: 1.		
402	HCEWD90	771629	412	223 - 237	3009			AR060: 7, AR316: 5, AR089: 4 H0194: 2, H0550: 1, H0486: 1, H0328: 1, H0056: 1, L0657: 1 and S0053: 1.	20q13.31- 20q13.33	261680
403	HCEWE62	692350	413	158 - 274	3010			AR060: 6, AR316: 5, AR089: 4 H0255: 4, H0265: 2, S0358: 1, H0261: 1, S0222: 1, H0123: 1, H0201: 1, H0615: 1, H0040: 1, H0634: 1, H0063: 1, T0041: 1, L0775: 1, H0693: 1, L0748: 1 and L0754: 1.	6pter-p21.31	
404	HCEZW14	745401	414	141 - 146	3011			H0261: 1 and L0753: 1. AR089: 20, AR316: 15, AR060: 9 L0748: 2, L0749: 2, H0556: 1, L0623: 1, T0060: 1, H0510: 1, H0166: 1, H0673: 1, L0456: 1, H0625: 1, H0445: 1 and H0352: 1.		
405	HCFAT42	815652	415	147 - 344	3012			H0422: 1		
406	HCFAT66	821337	416	119 - 241	3013	Gly-25 to Ser-40.		H0422: 1		
407	HCFBA30	608166	417	120 - 167	3014			L0805: 3, H0686: 1, H0580: 1, L0717: 1, H0373: 1, L0761: 1, L0662: 1, L0766: 1, L0375: 1	6	

408	HCFBM77	604576	418	93 - 212	3015				1, L0807: 1, L0657: 1, L0438: 1, H0660: 1, L0749: 1, L0779: 1, L0758: 1 and H0422: 1.		
409	HCFBV39	830525	419	419 - 430	3016				H0422: 1 AR089: 33, AR316: 25, AR060: 18 L0766: 15, H0521: 9, H0657: 7, L0740: 6, L0731: 6, L0803: 5, H0422: 5, H0551: 4, L0663: 4, L0777: 4, L0758: 4, H0556: 3, S0360: 3, H0457: 3, H0014: 3, L0804: 3, L0665: 3, H0648: 3, S0152: 3, L0754: 3, S0276: 3, H0542: 3, H0584: 2, S0040: 2, S0134: 2, H0662: 2, S0418: 2, S0420: 2, H0486: 2, H0013: 2, H0581: 2, H0050: 2, H0266: 2, H0264: 2, H0641: 2, L0521: 2, L0662: 2, L0794: 2, L0387: 2, L0775: 2, L0776: 2, L0789: 2, L0666: 2, H0144: 2, H0670: 2, H0660: 2, S0330: 2, L0745: 2, L0757: 2, L0759: 2, S0434: 2, L0593: 2, H0624: 1, H0265: 1, S0218: 1, H0656: 1, S0282: 1, H0483: 1, H0241: 1, H0638: 1, S0356: 1, S0354: 1, S0358: 1, S0376: 1, S0408: 1, S0410: 1, H0580: 1, H0411: 1, S0278: 1, H0392: 1, H0612: 1, H0600: 1, H0592: 1, H0587: 1, T0039: 1, H0244: 1, L0021: 1, H0575: 1, H0036: 1, S0665: 1, S0346: 1, H0085: 1, H0597: 1, H0044: 1, H0009: 1, L0163: 1, H0629: 1, H0594: 1, H0271: 1, S0250: 1, S0022: 1, H0553: 1, H0090: 1, H0591: 1, H0038: 1, L0060: 1, H0488: 1, H0413: 1, H0494: 1, H0625: 1, S0448: 1, S0294: 1.		

410	HCFCB72	824165	420	92 - 202				1, L0065: 1, S0210: 1, S0422: 1, S0426: 1, L0598: 1, H0529: 1, L0763: 1, L0638: 1, L0761: 1, L0372: 1, L0764: 1, L0771: 1, L0773: 1, L0649: 1, L0381: 1, L0378: 1, L0655: 1, L0659: 1, L0809: 1, L0787: 1, L0664: 1, H0699: 1, S0374: 1, H0693: 1, H0547: 1, H0519: 1, H0593: 1, H0689: 1, H0682: 1, H0658: 1, H0672: 1, S0328: 1, S0380: 1, H0518: 1, H0696: 1, H0555: 1, H0478: 1, H0479: 1, S0390: 1, S3014: 1, L0747: 1, L0779: 1, L0755: 1, H0445: 1, L0480: 1, S0196: 1, H0423: 1 and L0697: 1.		
411	HCFCG91	897509	421	1854 - 2741				H0318: 1 and H0422: 1. AR089: 11, AR316: 6, AR060: 3 L0770: 7, L0777: 7, S0406: 5, L0439: 5, L0758: 4, H0659: 3, H0717: 2, H0494: 2, L0598: 2, L0764: 2, L0655: 2, H0547: 2, H0521: 2, H0478: 2, L0748: 2, L0731: 2, L0595: 2, L0411: 1, H0657: 1, H0656: 1, H0663: 1, S0358: 1, H0329: 1, H0645: 1, H0639: 1, H0415: 1, H0455: 1, H0156: 1, L0021: 1, H0052: 1, T0110: 1, L0471: 1, H0687: 1, S0250: 1, H0428: 1, H0553: 1, H0166: 1, H0598: 1, H0040: 1, H0551: 1, S0386: 1, H0560: 1, H0509: 1, H0538: 1, UNKWN: 1, L0763: 1, L0638: 1, L0646: 1, L0662: 1, L0364: 1, L0803: 1, L0659: 1, L0636: 1, L0783: 1, L0666: 1, H0520: 1, H0519: 1, S0122: 1, H0435: 1.	9	

412	HCFCM81	847378	422	390 - 500	3019		1, H0518: 1, H0694: 1, H0555: 1, H0436: 1, L0747: 1, L0749: 1, L0779: 1, L0752: 1, L0755: 1, S0031: 1, L0485: 1, H0422: 1 and H0506: 1. L0766: 3, S0374: 2, H0543: 2, S0134: 1, H0125: 1, H0581: 1, H0030: 1, H0090: 1, H0591: 1, L0761: 1, L0659: 1, L0790: 1, H0518: 1, H0521: 1, H0436: 1, H0423: 1 and H0422: 1.	Xq21.1	300039, 305450, 309605
413	HCFCW39	847037	423	32 - 145	3020		L0766: 12, L0752: 9, L0803: 6, L0731: 6, L0659: 4, L0759: 4, L0655: 3, L0750: 3, L0758: 3, H0305: 2, H0252: 2, L0598: 2, L0369: 2, L0805: 2, L0665: 2, L0438: 2, H0539: 2, L0747: 2, L0591: 2, H0170: 1, H0657: 1, S0116: 1, S0418: 1, S0376: 1, H0675: 1, H0580: 1, S0045: 1, L0717: 1, H0411: 1, S0222: 1, H0497: 1, H0486: 1, H0274: 1, H0421: 1, H0085: 1, H0596: 1, L0471: 1, S0388: 1, S0051: 1, H0266: 1, H0687: 1, S0340: 1, S0003: 1, L0483: 1, L0055: 1, S0364: 1, L0455: 1, H0124: 1, H0090: 1, H0477: 1, H0268: 1, H0412: 1, H0560: 1, S0002: 1, H0529: 1, L0763: 1, L0371: 1, L0770: 1, L0761: 1, L0667: 1, L0772: 1, L0646: 1, L0764: 1, L0771: 1, L0794: 1, L0804: 1, L0776: 1, L0527: 1, L0657: 1, L0809: 1, L0664: 1, H0547: 1, H0659: 1, H0648: 1, H0672: 1, S0454: 1, H0478: 1, L0748: 1, L0439: 1, L0754: 1, L0780: 1, L0757: 1, H0445: 1, L0588: 1, L0589: 1, L0592: 1, L0599: 1	5q31-q33	109690, 109690, 121050, 131400, 138040, 153455, 154500, 159000, 179095, 180071, 181460, 192974, 192974, 222600, 222600, 234000, 272750, 600807, 601411, 601596, 601692, 601692, 601692, 601692, 602089, 602121, 602460

414	HCFCY49	637537	424	53 - 157	3021		1, H0665: 1, S0192: 1, S0242: 1, H0543: 1, H0423: 1 and H0422: 1. H0046: 9, H0529: 9, L0731: 8, L0362: 8, L0659: 6, L0742: 6, S0126: 5, S0328: 5, H0521: 5, L0740: 5, L0777: 5, H0543: 5, S0360: 4, S0003: 4, H0622: 4, S0466: 4, L0662: 4, L0766: 4, L0655: 4, H0696: 4, L0759: 4, S0442: 3, S0444: 3, H0590: 3, H0318: 3, S0474: 3, S0440: 3, L0776: 3, S0374: 3, S0152: 3, H0624: 2, H0657: 2, S0354: 2, S0358: 2, S0376: 2, H0587: 2, H0574: 2, H0635: 2, H0052: 2, H0263: 2, H0150: 2, H0375: 2, H0615: 2, H0553: 2, H0040: 2, H0634: 2, T0067: 2, S0422: 2, L0764: 2, L0651: 2, L0653: 2, L0783: 2, L0666: 2, L0665: 2, H0144: 2, L0438: 2, H0660: 2, S0380: 2, L0754: 2, L0745: 2, L0779: 2, L0752: 2, L0581: 2, L0601: 2, S0011: 2, S0026: 2, S0242: 2, H0422: 2, H0170: 1, L0615: 1, H0265: 1, H0686: 1, H0716: 1, S0218: 1, L0002: 1, H0650: 1, H0656: 1, S0282: 1, H0661: 1, H0662: 1, S0418: 1, S0408: 1, H0580: 1, S0046: 1, H0640: 1, H0549: 1, H0592: 1, H0586: 1, H0331: 1, H0486: 1, H0013: 1, H0156: 1, L0021: 1, H0003: 1, L0022: 1, H0575: 1, H0036: 1, H0251: 1, H0596: 1, L0040: 1, H0597: 1, H0123: 1, H0620: 1, H0350: 1, H0024: 1, H0014: 1, H0355: 1, H0266: 1, H0267: 1, H0188: 1, S0022: 1					
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415	HCFLB18	664012	425	191 - 295	3022	Pro-6 to Ala-11.		L0439: 3, L0779: 3, L0758: 3, L0438: 2, L0749: 2, L0731: 2, L0362: 2, H0624: 1, S0358: 1, L0717: 1, H0486: 1, L0771: 1, L0648: 1, L0653: 1, L0659: 1, L0747: 1, L0759: 1 and H0422: 1.					
416	HCFLB10	675140	426	52 - 72	3023			S0046: 1 and H0423: 1.					
417	HCFLC03	596809	427	621 - 671	3024			L0439: 6, L0740: 5, S0010: 3, L0748: 3, H0333: 2, H0052: 2, H0050: 2, L0754: 2, L0756: 2, L0731: 2, H0170: 1, H0177: 1, H0002: 1, H0051: 1, H0266: 1, H0591: 1, S0112: 1, S0150: 1, H0144: 1, H0539: 1, S0044: 1, S0028: 1, L0744: 1, L0750: 1, L0599: 1, L0608: 1 and H0423: 1.	8p11.2	136350, 152760, 180100, 182900, 277700, 600617			
418	HCFLJ52	1307037	428	121 - 1080	3025	Ala-28 to Trp-33, Ser-85 to Gly-98, Pro-117 to Arg-124,		AR089: 15, AR316: 11, AR060: 8 H0046: 8, S0354: 6, S0360:					

419	HCFL133	753260	2600	437 - 742	5197	Pro-150 to Gly-163, Ser-180 to Asp-186, Trp-201 to Ser-214, Gln-222 to Cys-238, Pro-243 to Gly-250, Pro-280 to Ser-288, Pro-312 to Arg-319.	6, H0435: 6, H0521: 6, L0751: 5, L0752: 5, H0295: 4, H0617: 4, S0440: 4, L0743: 4, L0779: 4, S0358: 3, H0644: 3, H0313: 3, H0494: 3, L0771: 3, L0664: 3, H0593: 3, S0432: 3, L0749: 3, L0777: 3, L0596: 3, L0601: 3, H0662: 2, S0278: 2, H0011: 2, H0553: 2, H0264: 2, H0646: 2, L0527: 2, L0659: 2, L0809: 2, L0665: 2, H0658: 2, L0602: 2, S0152: 2, H0555: 2, L0754: 2, L0747: 2, H0556: 1, H0484: 1, H0664: 1, S0356: 1, H0549: 1, H0550: 1, H0431: 1, H0370: 1, H0392: 1, H0299: 1, H0592: 1, H0486: 1, H0036: 1, H0590: 1, H0052: 1, H0263: 1, H0123: 1, H0012: 1, H0375: 1, H0286: 1, H0039: 1, L0194: 1, H0181: 1, H0606: 1, H0090: 1, T0067: 1, H0059: 1, H0647: 1, H0652: 1, S0344: 1, S0002: 1, L0638: 1, L0761: 1, L0646: 1, L0800: 1, L0643: 1, L0662: 1, L0794: 1, L0804: 1, L0774: 1, L0518: 1, L0789: 1, L0666: 1, L0663: 1, S0374: 1, H0682: 1, H0672: 1, S0328: 1, S0330: 1, H0539: 1, H0522: 1, L0750: 1, L0780: 1, H0445: 1, L0603: 1 and H0423: 1.
420	HCFLP48	604583	429	78 - 170	3026	Ser-19 to Pro-37, Pro-54 to Cys-61, Pro-68 to Gly-76.	L0041: 1, H0615: 1, S0152: 1 and H0423: 1.
421	HCFLQ12	748224	430	44 - 226	3027		H0423: 1
		836110	431	167 - 316	3028	Thr-4 to Lys-15.	L0519: 5, L0748: 5, L0754: 1 4, L0794: 3, L0430: 3, H0031:

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422	HCFLY20	786452	432	385 - 411	3029			AR089: 8, AR316: 6, AR060: 5 L0766: 6, H0616: 3, L0809: 3, L0789: 3, H0556: 2, S0144: 2, L0770: 2, L0761: 2, L0803: 2, L0757: 2, S0342: 1, S0116: 1, H0341: 1, S0358: 1, H0351: 1, S0278: 1, H0156: 1, H0004: 1, H0251: 1, H0014: 1, T0006: 1, H0424: 1, H0641: 1, L0374: 1, L0771: 1, L0794: 1, L0804: 1, L0774: 1, L0775: 1, L0376: 1, L0655: 1, L0783: 1, H0683: 1, H0518: 1, H0522: 1, S0044: 1, H0436: 1, L0742: 1, L0754: 1, L0749: 1, L0750: 1, L0780: 1, H0445: 1, H0543: 1, H0423: 1 and H0677: 1.					
423	HCFLY20	858875	433	95 - 568	3030	Pro-47 to Pro-59, Gly-96 to Asp-101, Arg-114 to Trp-121, Pro-132 to Trp-138.	AR089: 8, AR316: 6, AR060: 5 L0766: 6, H0616: 3, L0809: 3, L0789: 3, H0556: 2, S0144: 2,						

424	HCFMA39	826004	434	217 - 345	3031	Ser-21 to Ser-28.	H0423: 1	2, L0770: 2, L0761: 2, L0803: 2, L0757: 2, S0342: 1, S0116: 1, H0341: 1, S0358: 1, H0351: 1, S0278: 1, H0156: 1, H0004: 1, H0251: 1, H0014: 1, T0006: 1, H0424: 1, H0641: 1, L0374: 1, L0771: 1, L0794: 1, L0804: 1, L0774: 1, L0775: 1, L0376: 1, L0655: 1, L0783: 1, H0683: 1, H0518: 1, H0522: 1, S0044: 1, H0436: 1, L0742: 1, L0754: 1, L0749: 1, L0750: 1, L0780: 1, H0445: 1, H0543: 1, H0423: 1 and H0677: 1.		
425	HCFMJ40	604589	435	321 - 389	3032		AR183: 5, AR184: 5, AR182: 5, AR229: 5, AR227: 4, AR269: 4, AR313: 4, AR270: 4, AR238: 3, AR293: 3, AR175: 3, AR299: 3, AR290: 3, AR268: 3, AR177: 3, AR291: 3, AR251: 3, AR226: 3, AR289: 3, AR234: 3, AR096: 3, AR219: 3, AR295: 2, AR089: 2, AR233: 2, AR292: 2, AR294: 2, AR296: 2, AR258: 2, AR240: 2, AR237: 2, AR267: 2, AR033: 2, AR298: 2, AR266: 2, AR300: 2, AR285: 2, AR218: 2, AR231: 2, AR282: 2, AR280: 2, AR314: 2, AR315: 2, AR286: 2, AR256: 2, AR232: 2, AR316: 2, AR060: 2, AR185: 1, AR277: 1,			

426	HCFML07	580817	436	110 - 394	3033		AR275: 1, AR284: 1, AR263: 1, AR247: 1, AR179: 1, AR039: 1, AR281: 1, AR244: 1, AR259: 1 H0423: 1			
427	HCFMR75	894836	437	112 - 210	3034		H0412: 2, H0187: 2, L0777: 2, S0114: 1, H0306: 1, H0402: 1, S0354: 1, H0333: 1, H0052: 1, H0413: 1, L0770: 1, L0766: 1, H0627: 1, L0750: 1, L0779: 1, L0731: 1 and H0423: 1.	6q12-q13	203310	
428	HCFMX16	581042	438	354 - 440	3035		L0766: 2, S0354: 1, S0376: 1, H0574: 1, H0486: 1, L0369: 1, L0637: 1, L0775: 1, L0666: 1, L0665: 1, S0374: 1, L0352: 1, S0330: 1, L0439: 1, L0779: 1, L0758: 1, H0423: 1, S0424: 1 and H0506: 1.			
429	HCFMX88	825989	439	191 - 340	3036		H0423: 1 S0001: 1, S0476: 1, H0264: 1, H0521: 1, H0423: 1 and H0422: 1.			
430	HCFNM40	746864	440	448 - 543	3037		L0758: 7, H0040: 5, L0731: 3, S0444: 2, L0794: 2, H0701: 2, H0583: 1, S0418: 1, S0358: 1, H0486: 1, H0354: 1, H0591: 1, L0803: 1, L0774: 1, L0805: 1, L0665: 1, L0438: 1, L0754: 1 and H0423: 1.			
431	HCFNM50	732010	441	335 - 412	3038		H0306: 1 and H0423: 1.			
432	HCFNN16	740934	442	183 - 323	3039		AR176: 4, AR282: 4, AR053: 4, AR183: 3, AR263: 3, AR250: 3, AR225: 3, AR272: 3, AR197: 3, AR291: 2, AR271: 2, AR311: 2, AR299: 2, AR182: 2, AR205: 2, AR275: 2,			

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095083-091207

433	HCFNN75	762959	443	241 - 390	3040				H0656: 1, S0116: 1, H0671: 1, H0177: 1, H0638: 1, H0125: 1, S0356: 1, H0580: 1, S0046: 1, H0351: 1, H0333: 1, H0643: 1, H0632: 1, L0622: 1, H0486: 1, T0114: 1, H0427: 1, S0280: 1, H0036: 1, H0390: 1, H0318: 1, H0581: 1, H0421: 1, H0196: 1, H0309: 1, H0546: 1, H0545: 1, H0009: 1, H0123: 1, L0471: 1, H0012: 1, H0620: 1, H0199: 1, H0023: 1, H0014: 1, H0051: 1, H0510: 1, H0290: 1, H0328: 1, H0615: 1, H0688: 1, H0031: 1, H0553: 1, H0673: 1, H0212: 1, H0316: 1, H0090: 1, H0616: 1, H0063: 1, H0551: 1, H0059: 1, H0102: 1, H0560: 1, S0464: 1, L0065: 1, H0509: 1, H0633: 1, S0144: 1, S0210: 1, L0640: 1, L0638: 1, L0796: 1, L0645: 1, L0387: 1, L0649: 1, L0650: 1, L0774: 1, L0375: 1, L0805: 1, L0653: 1, L0379: 1, L0527: 1, L0512: 1, L0659: 1, L0517: 1, L0526: 1, L0666: 1, L0665: 1, S0052: 1, H0682: 1, H0684: 1, H0660: 1, H0666: 1, H0648: 1, H0672: 1, H0539: 1, H0518: 1, H0522: 1, H0134: 1, H0214: 1, H0555: 1, H0436: 1, L0744: 1, L0756: 1, L0753: 1, S0031: 1, H0445: 1, H0595: 1, L0597: 1, L0592: 1, H0136: 1, H0422: 1 and H0352: 1. AR089: 1 H0580: 1, H0431: 1, S0010: 1, H0379: 1, H0520: 1, H0547: 1, H0435: 1, L0602: 1, L0740: 1, H0423: 1 and S0456: 1
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434	HCFOG17	747700	444	27 - 131	3041		H0423: 1			
435	HCFOH93	668236	445	3 - 98	3042		H0423: 2, L0771: 1, L0768: 1, L0775: 1, L0809: 1, H0435: 1, L0779: 1 and H0422: 1.			
436	HCGBA15	604603	446	83 - 181	3043		H0458: 1			
437	HCHAC68	610370	447	201 - 851	3044	Ala-10 to Arg-18, Glu-45 to Glu-55, Val-82 to Trp-90.	AR183: 6, AR055: 5, AR244: 5, AR247: 5, AR204: 4, AR198: 4, AR089: 4, AR234: 4, AR309: 3, AR282: 3, AR229: 3, AR313: 3, AR251: 3, AR202: 3, AR231: 3, AR052: 3, AR248: 3, AR277: 3, AR053: 3, AR238: 3, AR267: 3, AR243: 3, AR269: 3, AR310: 2, AR206: 2, AR213: 2, AR270: 2, AR186: 2, AR237: 2, AR291: 2, AR179: 2, AR192: 2, AR295: 2, AR316: 2, AR184: 2, AR293: 2, AR182: 2, AR292: 2, AR096: 2, AR061: 2, AR253: 2, AR240: 2, AR299: 2, AR312: 2, AR268: 2, AR286: 2, AR294: 2, AR266: 2, AR290: 2, AR233: 2, AR226: 2, AR232: 1, AR219: 1, AR280: 1, AR060: 1, AR300: 1, AR033: 1, AR289: 1, AR185: 1, AR218: 1, AR177: 1, AR205: 1, AR283: 1, AR194: 1, AR227: 1, AR104: 1, AR281: 1, AR039: 1 L0665: 6, L0747: 5, L0743:			

438	HCHBP49	892141	448	234 - 344	3045			3, S0420: 2, H0266: 2, H0494: 2, L0646: 2, L0662: 2, L0806: 2, L0659: 2, S0328: 2, L0748: 2, H0295: 1, H0294: 1, H0483: 1, S0132: 1, S0222: 1, H0370: 1, H0600: 1, H0586: 1, H0587: 1, L0021: 1, H0688: 1, H0039: 1, H0622: 1, H0551: 1, H0116: 1, L0763: 1, L0770: 1, L0764: 1, L0771: 1, L0773: 1, L0386: 1, L0803: 1, L0775: 1, L0653: 1, L0663: 1, H0684: 1, H0672: 1, S0330: 1, H0555: 1, L0744: 1, L0779: 1, L0731: 1, L0757: 1, L0605: 1 and H0543: 1. L0749: 5, S0126: 4, L0774: 3, L0659: 3, L0789: 3, L0750: 3, S0420: 2, H0620: 2, L0763: 2, L0764: 2, L0775: 2, S0404: 2, L0743: 2, L0748: 2, H0624: 1, H0295: 1, S0134: 1, S0282: 1, H0483: 1, H0254: 1, H0638: 1, S0442: 1, S0376: 1, S0444: 1, H0675: 1, H0580: 1, H0156: 1, S0049: 1, H0309: 1, H0009: 1, H0569: 1, H0012: 1, H0024: 1, H0271: 1, H0063: 1, H0625: 1, H0652: 1, H0529: 1, L0643: 1, L0645: 1, L0773: 1, L0650: 1, L0776: 1, L0663: 1, L0665: 1, S0374: 1, H0435: 1, H0659: 1, H0648: 1, L0439: 1, L0759: 1, L0591: 1 and H0506: 1. L0769: 4, L0794: 3, L0751: 3, H0659: 2, H0483: 1, S0007: 1, H0018: 1, H0615: 1, L0763: 1, L0638: 1, L0800: 1, L0768: 1, L0522: 1, L0803: 1, L0805: 1, L0776: 1, L0790: 1, L0777: 1 and L0758: 1		
439	HCHCA79	840333	449	267 - 446	3046			L0769: 4, L0794: 3, L0751: 3, H0659: 2, H0483: 1, S0007: 1, H0018: 1, H0615: 1, L0763: 1, L0638: 1, L0800: 1, L0768: 1, L0522: 1, L0803: 1, L0805: 1, L0776: 1, L0790: 1, L0777: 1 and L0758: 1		

440	HCHCG33	862534	450	576 - 743	3047	Glu-28 to Lys-34.	H0013: 2, H0036: 2, L0776: 2, H0483: 1, S0045: 1, L0162: 1, H0252: 1, H0048: 1, S0015: 1, S0382: 1, L0766: 1, H0144: 1, S0013: 1, L0740: 1, L0745: 1, L0777: 1, L0759: 1 and L0366: 1.		
441	HCHMY57	833049	451	168 - 1211	3048	Lys-111 to Thr-117, Asn-193 to Trp-199, Ala-271 to Pro-282, Leu-303 to Ala-327.	AR281: 29, AR202: 24, AR205: 23, AR194: 22, AR039: 20, AR246: 19, AR315: 19, AR263: 18, AR206: 18, AR244: 18, AR243: 17, AR289: 17, AR266: 17, AR282: 17, AR283: 17, AR183: 17, AR280: 16, AR270: 16, AR271: 15, AR268: 15, AR241: 15, AR284: 15, AR198: 15, AR204: 13, AR314: 13, AR265: 13, AR277: 13, AR295: 13, AR285: 12, AR310: 12, AR192: 12, AR300: 12, AR269: 12, AR247: 12, AR213: 12, AR096: 12, AR238: 11, AR182: 11, AR291: 11, AR274: 11, AR232: 11, AR299: 11, AR286: 11, AR251: 11, AR227: 11, AR290: 11, AR312: 11, AR033: 10, AR184: 10, AR240: 10, AR313: 10, AR055: 10, AR089: 10, AR104: 10, AR177: 10, AR053: 10, AR309: 9, AR292: 9, AR316: 9, AR275: 9, AR296: 9, AR298: 9, AR234: 9, AR273: 9, AR294: 9, AR267: 9,		

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442	HCHOC06	688042	452	341 - 427	3049			AR089: 18, AR316: 14, AR060: 10 H0484: 1			
443	HCHOY52	837297	453	24 - 1253	3050	Ser-4 to Gly-10, Ala-13 to Gly-31, Gln-41 to Lys-68, Gln-73 to Asp-78.		L0766: 4, L0591: 4, H0657: 2, H0593: 2, L0759: 2, L0596: 2, H0656: 1, H0484: 1, S0418: 1, S0420: 1, S0356: 1, H0587: 1, H0544: 1, H0135: 1, L0667: 1, L0800: 1, L0771: 1, L0768: 1, L0794: 1, L0649: 1, L0803: 1, L0804: 1, L0805: 1, L0787: 1, L0532: 1, L0666: 1, H0658: 1, L0743: 1, L0749: 1, L0779: 1 and L0731: 1.			
444	HCHQB93	793648	454	1321 - 1521	3051	Gly-16 to His-22, Ser-51 to Glu-61.		L0748: 9, L0665: 4, H0486: 3, L0761: 3, L0663: 3, L0752: 3, S0116: 2, S0358: 2, L0662: 2, L0659: 2, L0809: 2, L0666: 2, L0731: 2, H0657: 1, H0484: 1, H0402: 1, S0420: 1, H0580:	6p21-p12	180297, 230450, 248611, 251000, 263200, 600211, 600701, 601690	

445	HCHQB93	875853	455	1321 - 1521	3052	Gly-16 to His-22, Ser-51 to Glu-61.	1, H0485: 1, L0738: 1, H0046: 1, H0239: 1, S0022: 1, H0553: 1, H0038: 1, H0551: 1, H0494: 1, H0560: 1, H0509: 1, S0002: 1, L0638: 1, L0796: 1, L0667: 1, L0645: 1, L0771: 1, L0766: 1, L0803: 1, L0652: 1, L0657: 1, L0793: 1, H0144: 1, H0547: 1, H0519: 1, H0672: 1, H0539: 1, H0710: 1, H0521: 1, H0696: 1, H0478: 1, L0439: 1, L0747: 1, L0750: 1, L0756: 1, L0757: 1, H0595: 1, H0542: 1, H0422: 1 and L0462: 1. L0748: 9, L0665: 4, H0486: 3, L0761: 3, L0663: 3, L0752: 3, S0116: 2, S0358: 2, L0662: 2, L0659: 2, L0809: 2, L0666: 2, L0731: 2, H0657: 1, H0484: 1, H0402: 1, S0420: 1, H0580: 1, H0485: 1, L0738: 1, H0046: 1, H0239: 1, S0022: 1, H0553: 1, H0038: 1, H0551: 1, H0494: 1, H0560: 1, H0509: 1, S0002: 1, L0638: 1, L0796: 1, L0667: 1, L0645: 1, L0771: 1, L0766: 1, L0803: 1, L0652: 1, L0657: 1, L0793: 1, H0144: 1, H0547: 1, H0519: 1, H0672: 1, H0539: 1, H0710: 1, H0521: 1, H0696: 1, H0478: 1, L0439: 1, L0747: 1, L0750: 1, L0756: 1, L0757: 1, H0595: 1, H0542: 1, H0422: 1 and L0462: 1.	6p21-p12	180297, 230450, 248611, 251000, 263200, 600211, 600701, 601690
446	HCLBK61	845659	456	1050 - 1139	3053		AR089: 46, AR316: 33, AR060: 21 L0740: 15, L0752: 11, L0731: 11, H0052: 9, L0769: 9, L0748: 9, L0753: 8, L0746: 7, L0747: 7, L0775: 6, L0751: 19p13.1	143890, 151440, 600173, 600276, 600310, 600310, 601604, 601843	

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447	HCLCU75	862406	457	228 - 479	3054	Pro-1 to Lys-6.	1, L0606: 1, L0659: 1, L0528: 1, L0665: 1, S0374: 1, L0438: 1, H0670: 1, H0672: 1, S0330: 1, S0378: 1, S0152: 1, S0044: 1, S0027: 1, S0028: 1, S0032: 1, L0439: 1, L0749: 1, L0755: 1, H0445: 1, S0394: 1, L0608: 1, H0665: 1 and H0423: 1.		
448	HCMSA37	598712	458	90 - 275	3055	Lys-25 to Gln-34.	H0394: 1 and L0749: 1.		
449	HCMSR07	821338	459	309 - 419	3056	Thr-23 to Ile-29.	H0196: 1 AR089: 7, AR316: 6, AR060: 6 L0717: 1 and H0196: 1.		
450	HCNAI74	750972	460	168 - 353	3057		H0085: 1		
451	HCNCT01	840357	461	241 - 264	3058		AR060: 3, AR316: 3, AR089: 2 H0597: 1		
452	HCNDR39	845243	462	2671 - 2706	3059		L0731: 10, H0013: 6, L0455: 6, L0740: 5, S0212: 4, S0222: 4, S0010: 4, L0438: 4, H0599: 3, H0529: 3, L0439: 3, L0745: 3, L0747: 3, H0583: 2, H0156: 2, H0046: 2, T0010: 2, H0039: 2, H0553: 2, H0124: 2, H0090: 2, H0591: 2, H0616: 2, L0776: 2, L0666: 2, L0663: 2, H0144: 2, L0565: 2, S0126: 2, H0684: 2, H0521: 2, H0171: 1, S0045: 1, S0132: 1, H0619: 1, H0411: 1, H0369: 1, H0613: 1, H0586: 1, H0333: 1, H0643: 1, T0040: 1, S0346: 1, H0232: 1, H0597: 1, L0471: 1, H0014: 1, S0051: 1, H0355: 1, H0188: 1, H0687: 1, S0250: 1, S0003: 1, S0214: 1, H0328: 1, H0615: 1, H0428: 1, H0038: 1, H0551: 1, T0067: 1, H0269: 1, H0623: 1, L0351: 1, T0042: 1, H0560: 1, S0344: 12		

453	HCNSD91	834817	463	309 - 359	3060				1, S0210: 1, L0638: 1, L0637: 1, L0654: 1, L0809: 1, L0647: 1, H0658: 1, H0672: 1, H0522: 1, S0044: 1, H0555: 1, S3014: 1, S0028: 1, L0748: 1, L0749: 1, L0779: 1, L0777: 1, L0759: 1, S0031: 1, L0589: 1, L0599: 1, L0362: 1, S0242: 1, S0194: 1, S0276: 1, H0543: 1, H0423: 1, S0412: 1 and H0506: 1. L0748: 9, L0157: 8, L0777: 6, L0743: 3, L0779: 3, H0624: 2, H0305: 2, H0589: 2, H0416: 2, H0553: 2, L0638: 2, L0764: 2, L0783: 2, L0809: 2, L0439: 2, L0740: 2, L0747: 2, H0171: 1, S0402: 1, H0295: 1, S0116: 1, H0663: 1, S0360: 1, H0618: 1, S0010: 1, H0231: 1, H0544: 1, H0009: 1, H0012: 1, S0051: 1, S6028: 1, H0179: 1, H0628: 1, S0364: 1, H0272: 1, S0142: 1, L0369: 1, L0770: 1, L0769: 1, L0649: 1, L0776: 1, L0656: 1, L0663: 1, H0547: 1, S0136: 1, H0521: 1, L0751: 1, L0749: 1, L0750: 1, L0755: 1, S0276: 1 and S0460: 1.	9		
454	HCNSF01	901060	464	1011 - 1154	3061				AR089: 28, AR316: 21, AR060: 15 S0132: 10, S0358: 9, S0408: 8, S0410: 8, S0002: 8, L0748: 7, H0494: 6, L0599: 6, S0142: 5, L0777: 5, S0476: 4, L0483: 4, L0775: 4, L0659: 4, H0521: 4, S0442: 3, S0278: 3, H0284: 3, H0039: 3, H0674: 3, H0591: 3, S0426: 3, L0771: 3, L0773: 3, S0374: 3, L0439: 3, H0556: 2, T0002: 2, H0584: 2, H0657: 1	15q15		177070, 177070, 182500, 218000, 227220, 243500, 600839, 601800

455	HCNSG06	600396	465	23 - 118	3062				2, S0360: 2, H0574: 2, H0486: 2, H0231: 2, H0046: 2, H0024: 2, H0286: 2, H0673: 2, S0440: 2, L0764: 2, L0766: 2, L0774: 2, L0651: 2, L0655: 2, L0664: 2, H0658: 2, H0710: 2, S0044: 2, S0404: 2, L0745: 2, L0747: 2, S0434: 2, L0581: 2, S0276: 2, H0543: 2, H0423: 2, H0422: 2, H0677: 2, H0506: 2, H0171: 1, H0167: 1, H0713: 1, S0298: 1, S0212: 1, H0662: 1, H0459: 1, S0348: 1, S0376: 1, S0444: 1, H0208: 1, H0632: 1, H0075: 1, H0635: 1, H0156: 1, H0042: 1, H0575: 1, H0036: 1, H0318: 1, H0251: 1, H0309: 1, H0545: 1, H0107: 1, H0083: 1, H0179: 1, H0687: 1, H0292: 1, S0003: 1, S0214: 1, H0622: 1, H0644: 1, H0628: 1, H0617: 1, L0055: 1, H0032: 1, H0316: 1, H0090: 1, H0040: 1, H0063: 1, T0067: 1, H0264: 1, L0564: 1, H0202: 1, S0014: 1, H0560: 1, S0372: 1, H0633: 1, H0649: 1, S0144: 1, L0640: 1, L0371: 1, L0770: 1, L0667: 1, L0803: 1, L0376: 1, L0805: 1, L0653: 1, L0542: 1, L0783: 1, L0809: 1, L0663: 1, H0701: 1, S0126: 1, H0689: 1, H0672: 1, S0328: 1, L0602: 1, S0406: 1, H0187: 1, S0206: 1, L0743: 1, L0756: 1, L0779: 1, L0752: 1, L0731: 1, L0759: 1, S0308: 1, H0343: 1, L0485: 1, L0601: 1 and S0011: 1.
									H0231: 1 and H0169: 1.
456	HCNSG32	825978	466	568 - 594	3063				H0231: 1, H0615: 1, L0745: 1 and L0485: 1.

457	HCPAE41	799546	467	46 - 174	3064	AR060: 29, AR316: 28, AR089: 27 L0748: 12, S0126: 10, L0731: 9, L0742: 7, L0770: 5, H0266: 4, L0747: 4, L0758: 4, S0360: 3, H0333: 3, L0471: 3, H0617: 3, H0038: 3, S0344: 3, L0774: 3, L0775: 3, L0752: 3, L0757: 3, L0470: 2, S0420: 2, H0599: 2, H0309: 2, L0163: 2, H0616: 2, T0041: 2, H0641: 2, L0769: 2, L0768: 2, L0766: 2, L0517: 2, H0144: 2, H0659: 2, H0670: 2, L0743: 2, L0750: 2, L0755: 2, L0588: 2, L0361: 2, H0624: 1, H0170: 1, H0265: 1, H0159: 1, H0295: 1, T0049: 1, S0134: 1, H0657: 1, S0116: 1, H0341: 1, H0662: 1, S0356: 1, H0340: 1, H0208: 1, S0045: 1, S0132: 1, H0393: 1, S0278: 1, S0222: 1, H0370: 1, L0622: 1, H0069: 1, H0427: 1, H0036: 1, S0010: 1, H0318: 1, H0581: 1, S0049: 1, H0196: 1, H0194: 1, H0263: 1, H0204: 1, H0597: 1, H0327: 1, H0544: 1, H0545: 1, H0009: 1, H0562: 1, H0023: 1, S0051: 1, H0083: 1, H0594: 1, S6028: 1, H0188: 1, H0687: 1, T0006: 1, H0031: 1, H0644: 1, H0181: 1, H0606: 1, H0032: 1, H0673: 1, H0169: 1, H0388: 1, H0124: 1, H0135: 1, H0163: 1, H0040: 1, H0634: 1, H0087: 1, H0551: 1, T0067: 1, H0477: 1, T0042: 1, H0366: 1, S0294: 1, H0509: 1, H0633: 1, L0772: 1, L0771: 1, L0522: 1, L0650: 1, L0375: 1, L0378: 1, L0806: 1,	2p24.3-p24.1	602134
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458	HCQAK36	561280	468	385 - 444	3065			L0776: 1, L0783: 1, L0809: 1, H0672: 1, S0380: 1, H0134: 1, H0576: 1, S0314: 1, L0740: 1, L0779: 1, L0759: 1, L0599: 1, S0026: 1, H0136: 1, S0276: 1 and H0422: 1.			
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459	HCQQAQ47	603530	469	113 - 232	3066			H0556: 15, H0083: 3, L0789: 3, L0747: 3, H0543: 3, H0265: 2, H0255: 2, S0046: 2, S0474: 2, S0466: 2, L0794: 2, L0519: 2, H0576: 2, L0777: 2, H0542: 2, S0278: 1, H0610: 1, H0370: 1, H0497: 1, H0559: 1, H0250: 1, S0280: 1, H0581: 1, H0421: 1, H0251: 1, H0263: 1, H0050: 1, H0063: 1, H0264: 1, T0041: 1, S0144: 1, S0142: 1, S0002: 1, L0764: 1, L0773: 1, L0803: 1, L0804: 1, L0775: 1, L0665: 1, H0518: 1, H0436: 1, L0731: 1, L0592: 1, H0136: 1 and H0422: 1.	18q22		174810, 601567, 602080
460	HCQAS72	828082	470	140 - 1054	3067	Ala-9 to Glu-14, Ile-29 to Gln-35, Ser-86 to Thr-93, Gln-121 to Gln-134,		AR089: 14, AR316: 13, AR060: 11 L0599: 2, H0253: 1, H0581: 1, H0263: 1, H0200: 1, H0040: 1,			

461	HCQBM95	841011	471	253 - 267	3068	Leu-137 to Phe-149, Gln-165 to Gln-177, Gln-186 to Leu-198, Gln-207 to Ala-223, Pro-228 to Leu-246, Thr-256 to Thr-284.	1, H0623: 1, H0280: 1, H0593: 1, H0521: 1 and H0555: 1.				
462	HCQCM95	800912	472	395 - 460	3069		H0263: 1 and S0002: 1. AR089: 10, AR316: 9, AR060: 8 L0740: 10, H0521: 8, L0659: 7, L0666: 7, L0731: 7, L0664: 6, L0754: 6, L0803: 5, L0752: 5, S0003: 4, L0770: 4, L0771: 4, L0438: 4, H0547: 4, S0380: 4, S0152: 4, H0522: 4, L0755: 4, H0171: 3, S0212: 3, S0358: 3, H0013: 3, H0545: 3, H0623: 3, S0344: 3, H0520: 3, S0126: 3, H0648: 3, H0539: 3, L0602: 3, L0744: 3, L0750: 3, L0758: 3, L0599: 3, S0026: 3, S0192: 3, S0242: 3, L0005: 2, S0360: 2, H0581: 2, H0510: 2, H0375: 2, L0483: 2, H0169: 2, H0090: 2, H0379: 2, H0056: 2, H0560: 2, L0662: 2, L0794: 2, L0766: 2, L0775: 2, H0660: 2, L0757: 2, H0667: 2, H0543: 2, H0422: 2, H0624: 1, H0265: 1, S0040: 1, S0134: 1, S0116: 1, S0418: 1, H0637: 1, H0580: 1, H0329: 1, H0208: 1, S0045: 1, H0370: 1, H0574: 1, T0040: 1, H0590: 1, S0010: 1, S0346: 1, S0474: 1, H0263: 1, H0596: 1, H0544: 1, H0546: 1, L0471: 1, T0003: 1, H0024: 1, S0050: 1, H0373: 1, S0388: 1, H0083: 1, S6028: 1, S0214: 1, H0615: 1, H0428: 1, H0622: 1, H0553: 1, L0142:			6	

463	HQCM95	886938	473	481 - 546	3070		1, H0032: 1, H0598: 1, S0036: 1, H0040: 1, H0616: 1, H0063: 1, H0551: 1, H0268: 1, H0269: 1, S0386: 1, T0041: 1, L0065: 1, S0150: 1, H0641: 1, H0529: 1, L0369: 1, L0763: 1, L0667: 1, L0800: 1, L0764: 1, L0648: 1, L0804: 1, L0651: 1, L0519: 1, L0788: 1, L0663: 1, L0665: 1, H0144: 1, H0593: 1, H0690: 1, H0659: 1, H0670: 1, S0330: 1, H0696: 1, H0694: 1, S0168: 1, H0134: 1, H0555: 1, H0436: 1, H0478: 1, S0027: 1, S0028: 1, L0439: 1, L0688: 1, L0583: 1, L0362: 1, L0366: 1, H0668: 1, S0196: 1, H0542: 1, H0423: 1, S0456: 1 and S0021: 1.		
463	HQCM95	886938	473	481 - 546	3070		AR089: 10, AR316: 9, AR060: 8 L0740: 10, H0521: 8, L0659: 7, L0666: 7, L0731: 7, L0664: 6, L0754: 6, L0803: 5, L0752: 5, S0003: 4, L0770: 4, L0771: 4, L0438: 4, H0547: 4, S0380: 4, S0152: 4, H0522: 4, L0755: 4, H0171: 3, S0212: 3, S0358: 3, H0013: 3, H0545: 3, H0623: 3, S0344: 3, H0520: 3, S0126: 3, H0648: 3, H0539: 3, L0602: 3, L0744: 3, L0750: 3, L0758: 3, L0599: 3, S0026: 3, S0192: 3, S0242: 3, L0005: 2, S0360: 2, H0581: 2, H0510: 2, H0375: 2, L0483: 2, H0169: 2, H0090: 2, H0379: 2, H0056: 2, H0560: 2, L0662: 2, L0794: 2, L0766: 2, L0775: 2, H0660: 2, L0757: 2, H0667: 2, H0543: 2, H0422: 2, H0624: 1, H0265: 1, S0040: 1.		

464	HCQCV23	800888	474	516 - 593	3071	<p>1, S0134: 1, S0116: 1, S0418: 1, H0637: 1, H0580: 1, H0329: 1, H0208: 1, S0045: 1, H0370: 1, H0574: 1, T0040: 1, H0590: 1, S0010: 1, S0346: 1, S0474: 1, H0263: 1, H0596: 1, H0544: 1, H0546: 1, L0471: 1, T0003: 1, H0024: 1, S0050: 1, H0373: 1, S0388: 1, H0083: 1, S6028: 1, S0214: 1, H0615: 1, H0428: 1, H0622: 1, H0553: 1, L0142: 1, H0032: 1, H0598: 1, S0036: 1, H0040: 1, H0616: 1, H0063: 1, H0551: 1, H0268: 1, H0269: 1, S0386: 1, T0041: 1, L0065: 1, S0150: 1, H0641: 1, H0529: 1, L0369: 1, L0763: 1, L0667: 1, L0800: 1, L0764: 1, L0648: 1, L0804: 1, L0651: 1, L0519: 1, L0788: 1, L0663: 1, L0665: 1, H0144: 1, H0593: 1, H0690: 1, H0659: 1, H0670: 1, S0330: 1, H0696: 1, H0694: 1, S0168: 1, H0134: 1, H0555: 1, H0436: 1, H0478: 1, S0027: 1, S0028: 1, L0439: 1, L0688: 1, L0583: 1, L0362: 1, L0366: 1, H0668: 1, S0196: 1, H0542: 1, H0423: 1, S0456: 1 and S0021: 1.</p>		
						<p>AR060: 5, AR316: 5, AR089: 5 L0756: 6, L0749: 5, S0404: 4, L0757: 4, H0617: 3, L0775: 3, L0666: 3, L0744: 3, L0777: 3, S0358: 2, H0620: 2, H0529: 2, L0764: 2, L0748: 2, L0439: 2, L0754: 2, H0445: 2, H0657: 1, S0116: 1, S0356: 1, S0222: 1, H0497: 1, S0010: 1, H0596: 1, H0012: 1, H0024: 1, H0428:</p>		

465	HCQCV23	862285	475	516 - 593	3072			1, H0644: 1, L0142: 1, H0598: 1, H0163: 1, H0264: 1, H0488: 1, H0625: 1, L0763: 1, L0806: 1, L0776: 1, L0379: 1, L0789: 1, L0663: 1, L0664: 1, L0665: 1, S0374: 1, L0438: 1, H0648: 1, S0406: 1, H0555: 1, H0627: 1, L0740: 1, L0750: 1, L0485: 1 and H0543: 1.		
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466	HCQDD32	832140	476	72 - 191	3073			AR089: 15, AR316: 14, AR060: 12 L0776: 2, L0759: 2, H0556: 1, S0360: 1, H0596: 1, H0617: 1, L0769: 1, L0768: 1, L0774: 1, L0809: 1, L0742: 1, L0757: 1 and H0422: 1.		
467	HCQDD61	845771	477	292 - 321	3074			H0637: 1 and H0596: 1.		
468	HCQDT67	834331	478	142 - 276	3075			AR060: 7, AR316: 5, AR089: 3 L0439: 5, H0592: 2, H0039:		

469	HCRA129	844084	479	175 - 294	3076			2, H0494: 2, L0748: 2, H0657: 1, S0418: 1, S0376: 1, H0580: 1, H0431: 1, H0333: 1, L0482: 1, H0581: 1, H0596: 1, H0050: 1, H0014: 1, H0622: 1, H0038: 1, H0561: 1, L0770: 1, L0800: 1, L0662: 1, L0768: 1, L0803: 1, L0805: 1, L0659: 1, H0520: 1, H0521: 1, L0759: 1, L0593: 1, H0543: 1 and H0506: 1.		
470	HCRA129	844084	479	175 - 294	3076			H0327: 1		
470	HCRA129	844084	479	175 - 294	3076			L0766: 2, L0803: 2, L0749: 2, H0263: 1, H0327: 1, H0090: 1, L0639: 1, L0387: 1, L0659: 1, L0791: 1, H0689: 1, H0670: 1, H0648: 1, S0330: 1, L0779: 1 and L0752: 1.		
471	HCRA129	844084	479	175 - 294	3076			Ala-46 to Arg-62, Leu-68 to Thr-94.	3p13-q13.2	156845, 156845, 156845, 164500, 600151
471	HCRA129	844084	479	175 - 294	3076			AR251: 11, AR089: 9, AR232: 8, AR310: 7, AR269: 7, AR244: 7, AR270: 7, AR060: 7, AR316: 7, AR265: 6, AR253: 6, AR061: 6, AR052: 6, AR033: 6, AR268: 6, AR312: 5, AR309: 5, AR182: 5, AR267: 5, AR186: 5, AR183: 4, AR290: 4, AR184: 4, AR238: 4, AR202: 4, AR237: 4, AR053: 4, AR263: 4, AR299: 4, AR175: 4, AR177: 4, AR291: 4, AR282: 4, AR289: 3, AR096: 3, AR248: 3, AR275: 3, AR284: 3, AR243: 3, AR296: 3, AR295: 3, AR213: 3, AR249: 3, AR266: 3, AR055: 3, AR240: 3,		

472	HCRBX84	1007105	482	87 - 668	3079	Arg-7 to Pro-13, Ser-28 to Pro-38, Arg-50 to Phe-56,	AR185: 3, AR300: 3, AR286: 3, AR234: 3, AR313: 2, AR285: 2, AR229: 2, AR281: 2, AR292: 2, AR247: 2, AR294: 2, AR218: 2, AR280: 2, AR293: 2, AR277: 2, AR039: 2, AR298: 2, AR283: 2, AR314: 1, AR273: 1, AR219: 1, AR206: 1, AR256: 1 L0803: 4, L0777: 4, L0157: 3, L0794: 3, L0766: 3, L0776: 3, L0758: 3, H0013: 2, H0251: 2, L0471: 2, H0051: 2, S0003: 2, S0036: 2, L0598: 2, L0805: 2, L0655: 2, L0789: 2, L0666: 2, H0521: 2, L0747: 2, L0756: 2, L0779: 2, L0759: 2, L0591: 2, L0362: 2, H0422: 2, S0218: 1, H0656: 1, H0661: 1, H0638: 1, S0418: 1, S0356: 1, S0354: 1, H0411: 1, S6022: 1, H0600: 1, H0587: 1, H0574: 1, S0010: 1, H0052: 1, H0596: 1, H0327: 1, H0178: 1, H0355: 1, H0266: 1, H0328: 1, H0268: 1, H0056: 1, H0623: 1, S0150: 1, S0142: 1, S0344: 1, UNKWN: 1, L0646: 1, L0764: 1, L0363: 1, L0767: 1, L0386: 1, L0774: 1, L0775: 1, L0659: 1, H0660: 1, H0648: 1, S0328: 1, S0152: 1, H0522: 1, S0392: 1, S0028: 1, L0751: 1, H0445: 1 and L0599: 1.		
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						Glu-76 to Pro-81, Cys-115 to Val-127, Thr-140 to Asp-171, Ala-175 to Gly-187.				S0036: 8, H0327: 7, H0052: 6, L0769: 6, L0751: 6, L0770: 5, L0766: 5, S0222: 4, S0346: 4, S0049: 4, S0051: 4, L0764: 4, L0771: 4, L0741: 4, L0779: 4, L0759: 4, S0031: 4, S0358: 3, H0441: 3, H0599: 3, H0373: 3, H0100: 3, L0776: 3, L0532: 3, L0742: 3, L0756: 3, L0752: 3, L0731: 3, S0442: 2, H0046: 2, H0050: 2, S0388: 2, H0083: 2, H0059: 2, S0038: 2, L0772: 2, L0768: 2, L0783: 2, L4501: 2, L0438: 2, S0028: 2, L0439: 2, L0745: 2, L0750: 2, L0758: 2, S0110: 1, S0282: 1, S0035: 1, S0420: 1, S0356: 1, S0444: 1, S0360: 1, S0300: 1, L0717: 1, H0351: 1, H0549: 1, H0586: 1, L0623: 1, H0318: 1, H0173: 1, H0196: 1, H0194: 1, H0597: 1, H0545: 1, H0178: 1, L0157: 1, H0565: 1, S6028: 1, H0266: 1, H0687: 1, H0615: 1, H0622: 1, H0553: 1, H0316: 1, H0494: 1, L0646: 1, L0374: 1, L0773: 1, L0662: 1, L0774: 1, L0775: 1, L0784: 1, L0806: 1, L0655: 1, L0807: 1, L0792: 1, L0666: 1, L0663: 1, S0053: 1, H0710: 1, S0406: 1, H0555: 1, H0436: 1, L0743: 1, L0747: 1, L0755: 1, L0757: 1, S0260: 1, L0592: 1, S0011: 1 and H0506: 1.	
						Arg-7 to Pro-13.	5198	41 - 139			
473	HCRMA24	722210	2601	41 - 139	5198		3080	86 - 154			
474	HCRM35	849071	483	2164 - 2340	3081						
			484								

475	HCRM35	874743	485	2164 - 2340	3082			4, L0755: 4, S0356: 3, H0575: 3, H0416: 3, H0265: 2, H0713: 2, H0411: 2, H0635: 2, L0021: 2, H0179: 2, L0766: 2, L0659: 2, L0666: 2, H0547: 2, L0748: 2, L0749: 2, L0596: 2, L0588: 2, H0717: 1, H0650: 1, H0656: 1, H0483: 1, S0418: 1, S0420: 1, S0444: 1, H0637: 1, S0046: 1, L0717: 1, S6022: 1, S0220: 1, H0485: 1, H0069: 1, H0618: 1, H0581: 1, H0544: 1, H0546: 1, H0620: 1, H0023: 1, H0510: 1, H0213: 1, H0628: 1, H0032: 1, H0634: 1, H0264: 1, H0280: 1, H0429: 1, H0641: 1, H0538: 1, L0640: 1, L0761: 1, L0643: 1, L0768: 1, L0653: 1, L0519: 1, L0545: 1, L0789: 1, L0792: 1, L4501: 1, L0665: 1, S0053: 1, L0352: 1, H0593: 1, H0670: 1, H0648: 1, H0521: 1, H0478: 1, L0743: 1, L0439: 1, L0747: 1, L0779: 1, L0780: 1, L0757: 1, L0758: 1, S0434: 1, S0436: 1, L0603: 1, H0543: 1 and H0423: 1.	3p22	116806, 168468, 182280, 190182, 190182, 227646, 261510, 600163, 601154
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476	HCRMR35	897434	486	2164 - 2340	3083				1, H0485: 1, H0069: 1, H0618: 1, H0581: 1, H0544: 1, H0546: 1, H0620: 1, H0023: 1, H0510: 1, H0213: 1, H0628: 1, H0032: 1, H0634: 1, H0264: 1, H0280: 1, H0429: 1, H0641: 1, H0538: 1, L0640: 1, L0761: 1, L0643: 1, L0768: 1, L0653: 1, L0519: 1, L0545: 1, L0789: 1, L0792: 1, L4501: 1, L0665: 1, S0053: 1, L0352: 1, H0593: 1, H0670: 1, H0648: 1, H0521: 1, H0478: 1, L0743: 1, L0439: 1, L0747: 1, L0779: 1, L0780: 1, L0757: 1, L0758: 1, S0434: 1, S0436: 1, L0603: 1, H0543: 1 and H0423: 1.	3p22	116806, 168468, 182280, 190182, 190182, 227646, 261510, 600163, 601154
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477	HCROC18	884144	487	367 - 1698	3084	Pro-18 to Gln-34, Ala-56 to Ser-61, Asn-74 to Pro-85, Arg-99 to Tyr-105, Asn-112 to Glu-120, Cys-144 to Asp-150, Ala-182 to Phe-187, Arg-228 to Thr-238, Ile-275 to Lys-283, Asp-300 to Ser-306, Arg-335 to Leu-346, Tyr-355 to Glu-361, Pro-369 to Tyr-375, Met-389 to Leu-396, Pro-419 to Asn-431.	1, L0352: 1, H0593: 1, H0670: 1, H0648: 1, H0521: 1, H0478: 1, L0743: 1, L0439: 1, L0747: 1, L0779: 1, L0780: 1, L0757: 1, L0758: 1, S0434: 1, S0436: 1, L0603: 1, H0543: 1 and H0423: 1.	16		
478	HCUAE53	665716	488	309 - 404	3085		AR089: 10, AR316: 9, AR060: 7 S0356: 6, H0253: 4, H0494: 4, H0547: 4, S0436: 4, S0408: 3, H0622: 3, L0794: 3, H0593: 3, L0751: 3, H0170: 2, S0007: 2, H0618: 2, H0039: 2, H0617: 2, H0100: 2, S0002: 2, L0659: 2, S0216: 2, H0670: 2, L0744: 2, H0445: 2, H0583: 1, H0656: 1, H0483: 1, H0662: 1, H0638: 1, S0420: 1, S0442: 1, S0358: 1, S0360: 1, H0489: 1, S0046: 1, H0550: 1, H0574: 1, H0635: 1, H0599: 1, L0022: 1, H0575: 1, S0049: 1, H0052: 1, H0085: 1, H0596: 1, H0597: 1, H0327: 1, H0544: 1, H0046: 1, H0012: 1, H0024: 1, H0252: 1, T0006: 1, H0213: 1, H0606: 1, H0135: 1, H0087: 1, H0058: 1, H0560: 1, H0131: 1, H0646: 1, S0210: 1, L0763: 1, L0761: 1, L0773: 1, L0508: 1, L0636: 1, L0543: 1, L5622: 1, L0666: 1, L0664: 1, H0144: 1, H0660: 1, H0672: 1, H0651: 1, H0539: 1, H0521: 1, S0044: 1, S0406: 1, H0478: 1, L0743: 1, L0748: 1, L0747: 1, L0779: 1, S0434: 1, L0591: 1, L0601: 1, S0192: 1 and H0542: 1.			
							H0306: 1			

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